Planning Commission Date: March 14, 2007 Item No. 1.

MILPITAS PLANNING COMMISSION AGENDA REPORT

Category: Public Hearing Report Prepared by: Cindy Maxwell

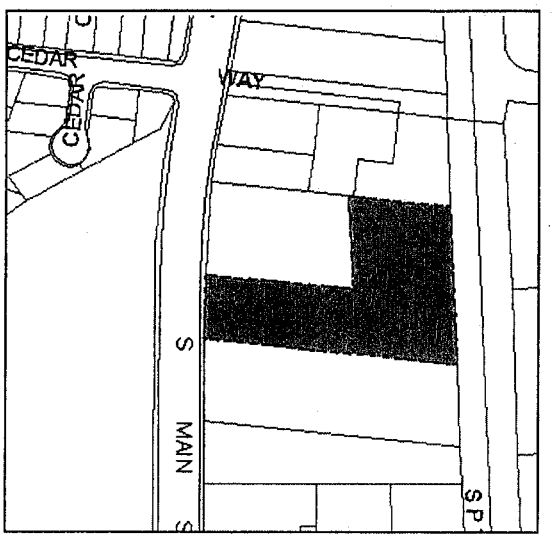
Public Hearing: Yes: ___X___ No: _____

Notices Mailed On: 3/2/07 Published On: 3/1/07 Posted On: 3/2/07

TITLE:	**ASPEN FAMILY APARTMENTS – 101 AFFORDABLE APARTMENTS AT 1666 S. MAIN ST.**
Permits:	SZ2007-1 and UP2006-22
Location:	1666 S. Main St.
APN:	086-22-023
RECOMMENDATION:	**Close the public hearing. Approve S-Zone Application No. SZ2007-1 and Use Permit No. UP2006-22, as modified and subject to the staff recommended findings and special conditions.**
Applicant(s):	Global Premier Development, Inc., 5 Park Plaza, Suite 980, Irvine, CA 92614 – Project Manager: Charles Hutchison
Property Owner(s):	Martin & Mary Baccaglio, 15030 Montebello Rd., Cupertino, CA 95014
Previous Action(s):	EIR, GPA, Rezoning for Midtown Specific Plan. 'S' Zone for one of the existing buildings.
General Plan Designation:	Multi-Family Very High Density. Located in Midtown Specific Plan area.
Present Zoning:	Multi-Family Very High Density with 'S' Zone combining district (R4-S)
Existing Land Use:	Two multi-tenant industrial buildings and storage areas
Agenda Sent To:	Applicant and Owners (as noted above) - Donna Vingo, Warmington Homes, 2010 Crow Canyon Place, Suite 450, San Ramon, CA 94583 - Robert Dulalia, Saf-Keep Storage, 1680 S. Main St., Milpitas, CA 95035
Attachments:	Plans

PJ No. 3199

BACKGROUND



Project Summary

- 1666 S. Main Street
- 2.69 acres with existing industrial and commercial service uses.
- Demolish existing industrial buildings.
- Construct a 101-unit apartment project for low and very low-income households.
- Four-story buildings over underground garages.

Project Application

The project application consists of:

- Site and architectural review (S-Zone No. SZ2007-1) pursuant to Section 42 of the Zoning Ordinance and the Midtown Specific Plan standards and design guidelines (Chapter 8).
- Use Permit No. UP2006-22 to:
    - Reduce the required number of parking spaces for residents and guests.
    - Credit on-street parking spaces as guest parking.
    - Modify required building setbacks from public streets.
    - Reduce amount of private open space.

Other Related Applications

- Street names - Scheduled for review by Facilities Naming Subcommittee on March 21, 2007.
- Tentative Map – Scheduled for review by Planning Commission on March 28, 2007.
- Owner Participation Agreement – Scheduled for review by the City Council on April 3, 2007.

Surrounding Uses

- Refer to Attachment A for graphic representation.
- North: Industrial buildings with "R4-TOD-S" zoning.
- East: Union Pacific Railroad line and future Penitencia Creek trail.
- South: Saf-Keep Mini-Storage, 1680 S. Main St., zoned "R4-S".
- West: S. Main St., Multi-tenant industrial (Southbay Tech Center), pending application to develop as residential.

Previous Actions

- 'S' Zone (site and architectural review) for one of the existing buildings.
- Midtown Specific Plan: Environmental Impact Report, General Plan Amendment, and rezoning to "R4-S" Very High Density Residential.

PROJECT DESCRIPTION

Overview

- 1666 S. Main Street
- 2.69 acres with existing industrial and commercial service uses
- Demolish existing industrial buildings.

- Construct a 101-unit family apartment project with recreation center.
- 37.5 dwellings per acre.
- Three four-story buildings with underground garages.
- New public streets to create smaller blocks.

Affordability

- 101 affordable (100%) rental-housing units.
- For very low-income and low-income households.[1]
- Rents will range from $1,073 to $1,375 per month.

Residences

Table 1

Number of Dwelling Units	Bedrooms	Unit Size (Sq. Ft.)
50	2	950
50	3	1,200-1,255
1 *	2	750

* Manager's unit

Recreation Facilities

- 1,564 square foot recreation center with community room and game room
- Outdoor picnic and barbeque area
- Children's play area

Architecture

- Three four-story buildings with two-level underground parking.
- Contemporary design.
- Wood-frame construction with a stucco exterior.
- Building body color: four shades of beige
- Accent colors: white, gold and brown
- Flat roof with decorative parapet.
- Five-foot deep metal building canopies.
- Recessed windows.
- Balconies and patios with metal railings painted white (accent color).
- Decorative banding to add architectural interest.

Circulation

- New public streets create smaller blocks for improved walkability and the basis for a new street grid system on the east side of S. Main Street.
- Midtown streetscape design guidelines followed for street trees, ten-foot sidewalks and decorative lighting.

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[1] Very low-income households are defined at 50% of the County Area Median Income. Low-income households are defined at 80% of the County Area Media Income. Currently, the 2006 median income for Santa Clara County is $105,500 for a family of four. The 2007 County Area Median Income is currently not available.

- Access off S. Main St. with new signalized intersection.
- S. Main St. street improvements will comply with new S. Main St. Plan Line Study.
- Emergency access easement on adjoining parcel to south.

Parking
- Resident parking in two-level underground garage.
- Guest parking on street.
- No tandem parking.
- 235 total spaces required; 199 spaces provided
- Use Permit application to reduce required parking and credit on-street parking discussed later in report.

Landscaping
- 44 trees (36" box) including the 22 street trees with decorative tree-well grates per Midtown Design Guidelines.
- Because of limitations associated with landscaping over a subterranean garage there are raised planters and no turf.
- Five-foot high masonry wall on east property line with shrubs and vines.

Lighting
- Decorative lighting fixtures for street and pedestrians.

Solid Waste
- Trash and recycling chutes in each building.
- On-site manager pushes bins out to street for collection.

Rooftop Equipment
- Mechanical equipment screened by building parapet

USE PERMIT REQUESTS

1. Reduce the required number of parking spaces for residents and guests.
The project requests a parking reduction of 36 spaces as indicated in the table below:

Table 2

	Total Resident	Guest
Required	202	33
Provided	182	17
Difference	20 (10%)	16 (48%)

The parking reduction would allow for a significant dedication of area for new public streets and a higher density and more affordable units than could be provided if the parking standards in "R4" zoning were applied.

2. Credit on-street parking spaces as guest parking.

Guest parking is proposed only on the public street. The Zoning Ordinance requires that all required parking must be located on the development site.[2] Allowing public street parking to be credited to the project allows for more affordable residences than could be provided if guest parking were required to be on-site especially because of the significant requirement to dedicate new public streets.

3. Modify required building setbacks from public streets.

As indicated in Table 3, the project proposes building setbacks that do not meet Zoning Ordinance requirements. Allowing slight reductions in building setbacks allows the project to work within the unusual shape of the parcel, meet Fire Department access needs, dedicate new public streets and offer more affordable residences than could be provided if guest parking were required to be on-site.

4. Reduce amount of private open space.

As indicated in Table 3, the City's requirement for private open space has been met by the project and this request is no longer needed to be a part of the Use Permit request.

RELATIONSHIP TO NEIGHBORING RESIDENTIAL PROJECT

The developers of a neighboring proposed residential project, Estrella by Warmington Homes, has partnered with the developers of Aspen Family for affordable housing credit and construction of street improvements. The recommended special conditions and the City's legal agreements with both developers have incorporated this partnership and insure that if one project is not constructed the appropriate obligations for affordable housing and street improvements are still met. The Estrella project is tentatively scheduled for Planning Commission review on April 11, 2007.

CONFORMANCE WITH PLANS AND ORDINANCES

General Plan

The proposed project is consistent with the following Guiding Policies and Implementing Principles of the General Plan:

- *2.a-G-2* which encourages a relatively compact form, through the use of compact development and higher densities;
- *2.a-G-3* which provides for a variety of housing types and densities to meet the demands of families;
- *2.b-I-3* which provides housing opportunities in Milpitas by meeting the City's regional fair-share housing obligations;
- *2.a-G-6* which implements the Midtown Specific plan goals, policies, and development standards and creates high density housing; and

[2] MMC XI-10-53.02

- *2.a-I-2, which* promotes in-fill development in the incorporated city limits.

The proposed density of the project is consistent with the Multifamily Very High Density General Plan designation of 31-40 DU/acre. In addition, the overall development will be an in-fill project replacing existing industrial type uses

Midtown Specific Plan

The project is consistent with the intent and specific requirements of the Midtown Specific Plan. With the exception of building setbacks and parking as indicated in Table 3, the project complies with the development standards of the "R4" zoning district,. The project conforms to the Midtown Specific Plan's Land Use Goals 2 and 3, and Residential Policies 3.1 and 3.4 through 3.6 in that it provides a significant amount of new high-density housing that addresses needs for multifamily housing and affordability. In addition, the proposed project is consistent with Park and Open Space Policy 3.24, Circulation Goals 1 and 2, Circulation Policies 4.5 and 4.9, Parking Policy 4.19 and Community Design Goal 4 in that the in-lieu park fee will be used to improve public parks and the new streets and streetscape improves the pedestrian orientation and character of the streets.

The Midtown Plan requires a 20% minimum affordability of units for all new residential projects. The project provides 100% affordability. Even after transferring credit for affordable units to the neighboring Terra Serena project, the project will still far exceed the 20% requirement.[3]

Zoning Ordinance

The project's conformity with the land use and development standards of the Multi-Family Very High Density "R4" District are outlined in the following table:

Table 3

Standard	Required	Proposed	Complies?
Density	31-40 dwelling units per acre	37.5	Yes
Building Height	4 stories 60 ft.	4 stories 47 ft.	Yes
Parking	202 Resident 33 Guest	182 Resident 17 Guest	No Use Permit requested for reduced parking & credit for on-street parking
Front & Street Side Setbacks	8 to 15 ft. from back of sidewalk	3 to 25 from back of sidewalk	No Use Permit requested for reduced setbacks

[3] Milpitas Midtown Plan, Section 8.10, Policies 3.5 and 3.6.

Interior & Rear Setbacks	≥ 10 ft.	≥ 7 ft.	No Use Permit requested for reduced setbacks
Park & Open Space	▪ Total parkland 0.89[4] ▪ Usable open space = 0.67 acres[5] ▪ Private open space/unit[6]	▪ TBD with tentative map ▪ 0.86 acres ▪ Decks: 103 sq. ft.	▪ No – In Lieu Fee will be required ▪ Yes ▪ Yes

Environmental Review

The proposed project is exempt from further environmental review pursuant to Article 8, Section 65457 (CEQA Exemption) of the State Planning and Zoning Law and Article 11, Section 15168(c)(2) (Program EIR) of the California Environmental Quality Act (CEQA) Guidelines. The proposed project is consistent with the Midtown Specific Plan Program EIR and no new effects or new mitigation measures are required.

Mitigation measures for traffic and hazardous material impacts from the Midtown Program EIR apply to the project and have been carried over in the form of conditions of approval, as discussed below.

Hazardous Materials

The parcels within the project site have been subject to soil and water contamination due to previous land uses. Phase I and II Environmental Assessments were performed.[7]

- On the east half of the site, soil samples were found with unacceptable levels of PCBs, TPHd, TPHmo, Dibenzo(a,h)anthracene, Chromium, Mercury and Nickel. Contaminated soil is required to be removed prior to construction.
- Groundwater samples indicate localized copper contamination. Appropriate mitigation is required prior to construction.

Traffic

The proposed project will generate new trips throughout the area. As identified in the Midtown Specific Plan EIR, most traffic impacts cannot be mitigated over the long term. The City adopted overriding considerations for these impacts.

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[4] MMC XI-1-9
[5] MMC XI-10-8.07-2
[6] MMC XI-10-8.07-3
[7] Letter to Global Premier Development, Inc. from SCA Environmental, Inc., re: Soil & Groundwater Delineation, Revised Jan. 8, 2007

- A Traffic Impact Analysis specific to the project was prepared.[8]
- Project will generate 606 daily trips, 49 AM and 55 PM peak hour trips. With credit for existing industrial uses, the net total trips are 414 daily trips, 28 AM and 32 PM peak hour trips.
- Four intersections were analyzed.
    - Three streets meet City level of service policy for "D" level of service (LOS): (1) S. Main/Cedar Way, (2) S. Main/S. Abel, and (3) Great Mall Pkwy./S. Abel.
    - Montague Expwy./S. Main meets Congestion Management Program LOS criteria. "E" LOS in AM peak and "F" LOS in PM peak.
- Mitigation measures
    - Payment of Midtown Specific Plan Traffic Impact Fee and "fair share" of Montague Expressway Improvement Project Fee.
    - S. Main Street Plan Line Project street improvements including street median.

Vibration and Noise

The City's noise criteria are contained in the Milpitas General Plan.[9] The project site was analyzed for noise impacts from traffic on S. Main St. and Union Pacific railroad tracks.[10]

- Noise impacts on the residential units from traffic on S. Main St. will not exceed the City's noise criteria.
- Mitigation measures
    - Ventilation or air conditioning system required providing closed window conditions.
    - Supplemental analysis of noise and vibration impacts of trains required and appropriate mitigation measures incorporated into site and building design.

RECOMMENDATION

1. Close the public hearing.
2. Based on the findings and special conditions listed below, approve S-Zone Application No. SZ2007-1.
3. Based on the Use Permit findings, approve Use Permit No. UP2006-22, as modified, to:
    a. Reduce the required number of parking spaces for residents and guests.
    b. Credit on-street parking spaces as guest parking.
    c. Modify required building setbacks from public streets.

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[8] Traffic Analysis Report for Aspen Family Apartments, Pang Engineers, Inc., November 14, 2006.
[9] Milpitas General Plan, Table 6-1, p. 6-4.
[10] Noise Impact Study of the Proposed Aspen Family Apartments, Report #06107Brpt, P.A. Penardi & Assoc., 12/23/06

FINDINGS

1. The proposed project is exempt from further environmental review pursuant to Article 8, Section 65457 of the State Planning and Zoning Law and Article 11, Section 15168(c)(2) (Program EIR) of the California Environmental Quality Act (CEQA) Guidelines.
2. The proposed project is consistent with Guiding Policies and Implementing Principles 2.a-G-2, 2.a-G-3, 2.a-G-6 and 2.a-G-6 of the General Plan in that the proposed overall density is consistent with the Multi-Family Very High Residential General Plan designation and meets the intent of the Midtown Specific Plan of densities over 30 DU/acre. It will provide family housing, with two and three bedroom units, assist in meeting the City's regional housing obligations and is 100% affordable. In addition, the overall development will be an in-fill project replacing an existing industrial type uses.
3. As conditioned, the proposed project is consistent with the intent and specific requirements of the Midtown Specific Plan in that it complies with the development standards of the "R4" Midtown zoning district, with the exception of number of setbacks and parking, it conforms with the Midtown Specific Plan's Land Use Goals 2 and 3, Circulation Goal 1 and 2, Circulation Policies 4.5 and 4.9, Parking Policy 4.19, Community Design Goal 4, Residential Policies 3.1 and 3.4 through 3.6, and Park and Open Space Policy 3.24 and is conformance with all applicable design guidelines.
4. As conditioned, the proposed project is consistent with the City of Milpitas Zoning Ordinance in terms of land use and development standards, with the exception of setbacks and parking, for "R4-S" zoning.
5. As conditioned, the layout of the site, design of the proposed building, and landscaping would be compatible and aesthetically harmonious with the future development of the surrounding area as envisioned by the Midtown Specific Plan and would greatly improve the current aesthetics of the site.
6. The proposed project exceeds the 20% minimum affordability requirements of the Zoning Ordinance[11], the "R4" development standards and the Midtown Affordable Housing Policies 3.5 and 3.6.

Use Permit Findings

7. The exceptions meet the design intent identified within the Midtown Specific Plan and do not detract from the overall architectural, landscaping and site planning integrity of the proposed development.
8. The exceptions from the Midtown Specific Plan allow for a public benefit not otherwise obtainable through the strict application of the specified standards.
9. The exceptions, in the proposed project, will not be detrimental or injurious to property or improvements in the vicinity nor to the public health, safety, and general welfare.

[11] MMC XI-10-8.10

10. The proposed exceptions will be consistent with the intent of the Milpitas General Plan and the Milpitas Zoning Ordinance.

SPECIAL CONDITIONS

1) **"S" Zone Approval:** This "S" Zone Approval No. SZ2007-1 is for a multifamily residential development for 101 affordable family apartments and associated site improvements in accordance with the plans approved on March 14, 2007, and as amended by the conditions below. Any modification to the project as approved will require an "S" Zone Amendment by the Planning Commission. Minor modifications can be submitted to the Planning Division for processing as per Section 42.10 of the zoning code. (P)

2) **Use Permit Approval**: This Use Permit No. UA2003-37 is for:
   a. Reduce the required number of parking spaces by 20 for residents and 16 for guests.
   b. Credit on-street parking spaces adjacent to the development as guest parking.
   c. Modify required building setbacks from public streets.

   Any modification to the above exceptions will require approval of a Use Permit Amendment by the Planning Commission. (P)

3) **Parking**: Prior to certificate of occupancy issuance, the applicant shall submit a copy of a lease agreement that requires a statement for each unit rented that limits the number of parking spaces provided per unit and shall submit a copy to the City. (P)

4) **Legal compliance**: This use shall be conducted in compliance with all appropriate local, state, and federal laws and regulations, and in conformance with the approved plans. (P)

5) **Asbestos**: Prior to any demolition or removal of any structures onsite, the applicant submit the asbestos survey and if asbestos-containing materials are present, the materials shall be abated by a certified asbestos abatement contractor in accordance with the regulations and notification requirements of the Bay Area Air Quality Management District. (P)

6) **Lead**: Prior to building permit issuance, the applicant shall submit documentation of the removal of all lead contamination and a "Notice of Completion" letter from the Department of Toxic Substance Control. (P)

7) **Park Fee**: Prior to certificate of occupancy issuance, the applicant shall pay a park-in-lieu fee based on the latest Fair Market Appraisal (March 2007) and with credit for private open space. (P)

8) **Private Job Account**: If at the time of application for building permit and for occupancy permit, there is a past due project job account balance owed to the City for recovery of review fees, review of permits will not be initiated until the balance is paid in full. (P)

9) **Noise and Vibration**: Prior to building permit issuance, a detailed analysis of railroad noise and vibrations must be submitted and recommended mitigation measures incorporated in the project plans. (P)

10) **Signs**: Prior to occupancy permit issuance, the project sign program must be approved by the Planning Commission. (P)

11) **Solid Waste**: The trash/recycling chutes, bins and enclosure areas shall be kept clean by double-bagging garbage and by frequent sweeping and disposal of any spilled solid waste. (P)

11) **Landscape Irrigation**: Prior to building permit issuance, the applicant shall submit an irrigation plan for all landscape areas. The irrigation plan shall show that all landscape areas, including planter areas and containerized planters, will have an automatic, self-watering system installed that is serviced by a sprinkler head or drip system equipped with a moisture sensor. (P)

12) **Landscaping:** Prior to issuance of an occupancy permit, the required landscaping shall be planted and in place. (P, C.3 Standard Condition No. 4)

13) **Landscaping**: All required landscaping shall be replaced and continuously maintained as necessary to provide a permanent, attractive and effective appearance. Proper maintenance of landscaping requires minimal pesticide use and shall be the responsibility of property owner in perpetuity. The pest reducing landscape maintenance techniques listed in the "Fact Sheet on Landscape Maintenance Techniques for Pest Reduction" in the City of Milpitas *Stormwater C.3 Guidebook*, are incorporated by reference into this condition. (P, C.3 Standard Condition No. 7)

14) **Landscaping:** City Planning staff shall have approval authority for the installation of comparable substitute pest-resistant plant materials to satisfy the requirements of the approved landscape plan when the approved plants and materials are unavailable for installation, or when other unforeseen conditions prevent the exact implementation of the landscape plan. (P, C.3 Standard Condition No.6)

15) **Decorative Surfaces:** Prior to building permit issuance, applicant shall add decorative elements (i.e., pavers or tile accents) to plans for private walkways and planter areas, to the approval of the Planning Division. (P)

16) **Building Features:** Prior to building permit issuance, applicant shall revise building elevations to include:
   a. Windows recessed four inches (per Midtown Specific Plan Guidelines).
   b. Roof downspouts draining to landscape areas to the greatest extent possible.
   c. Covered bicycle parking. (P)

17) **Screening**: On-site utility transformers, boxes, etc. shall be placed underground (subsurface vaults) or be located at the rear of the property and screened from public view in a manner to the approval of the Planning Division. (P)

18) **Emergency Access Gates**: Prior to building permit issuance, the applicant shall provide plans for emergency access gates to the approval of the Fire and Planning Departments. (P)

19) **Stormwater:** Prior to building permit issuance, permit plans shall incorporate the following BMP'S for post construction storm water impacts: (P)
   a. Labeling and maintenance (annual inspections) of storm drain facilities;
   b. Storm drain inlet cleaning on an annual basis;
   c. Street sweeping.

20) **Vector Control:** Prior to any construction or grading of the site, a vector control plan shall be submitted to and approved by the City. (P)

21) **Air Quality:** Prior to building permit issuance, permit plans shall implement the following Best Management Practices (BMP's) at all project construction sites: (P, MM AQ-1)
   a. Water all active construction areas;
   b. Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard;
   c. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking and staging areas;
   d. Sweep daily;
   e. Hydro seed or apply non-toxic soil stabilizers to inactive construction areas;
   f. Enclose, water or apply non-toxic soil binders to exposed stockpiles;
   g. Limit traffic speeds on unpaved roads to 15 miles per hour;
   h. Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
   i. Suspend excavation and grading activity whenever the wind is so high that it results in visible dust plumes despite control efforts. (P)

22) **Air Quality:** Prior to any permit issuance, incorporate into building plans appropriate Bay Area Air Quality Management District (BAAMQD) Best Management Practices (BMP's) to reduce vehicle trips as identified in the Summary of Impacts and Mitigation Measures (Section 1.2 of the DEIR and FEIR, Subsection "Air Quality", MM "Regional Development Impacts" for commercial development). Possible measures are (P, MM AQ-2):
   a. Provide physical improvements such as sidewalks, landscaping and bicycle parking that will act as incentives for pedestrian and bicycle modes of travel;
   b. Connect the site with regional bikeway and pedestrian trail systems;
   c. Provide a transit information kiosk;
   d. Provide showers and lockers for employees bicycling or walking to work;
   e. Provide secure and conveniently located bicycle parking and storage for workers and patrons;
   f. Provide electric vehicle charging facilities;
   g. Provide preferential parking for Low Emission Vehicles;
   h. Use specialty equipment (utility carts, forklifts, etc.) that are electrically, CNG or propane powered;
   i. Use reflective (or high albedo) and emissive roofs and light colored construction materials to increase the reflectivity of roads, driveways, and other paved surfaces, and include shade trees near buildings to directly shield them from the sun's rays and reduce local air temperature and cooling energy demand. (P)

23) **Construction Noise:** During construction, the applicant shall implement the following measures to reduce construction noise: (P)
   a. Construction shall be limited to the hours of 7:00AM to 7:00PM on weekdays, and 9:00AM to 5:00PM on Saturdays, with no noise generating construction on Sundays and holidays.
   b. Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.

c. Utilize quiet models of air compressors and other stationary noise sources where the technology exists.
d. Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
e. Prohibit unnecessary idling of internal combustion engines.
f. Prior to issuance of a building permit, designate a noise disturbance coordinator who will be responsible for responding to any local complaints about construction noise. During construction, the coordinator will determine the cause of the noise complaints and institute reasonable measures to correct the problem. Maintain during all construction a conspicuously posted telephone number for the public to call the coordinator at the construction site. (P)

24) **Biology:** Appropriately timed surveys shall be conducted by a qualified botanist according to protocols acceptable to the U.S. Fish and Wildlife Service and the California Department of Fish and Game (CDFG), to determine the presence and/or absence of special status plant species. If presence is detected, notification and appropriate protocols for relocation and/or mitigation and monitoring plan, to the approval of the City, for the plant species shall be prepared for long-term protection. The plan shall be implemented either before or concurrently with ground disturbing activities on the property. (P)

25) **Biology and Hydrology:** The applicant shall modify the existing Stormwater Pollution Protection Plan (SWPPP). This plan shall include provisions to minimize on-site and off-site impacts to biological resources and water quality resulting from project related runoff. Measures shall include the following: (P)
a. The use of silt fencing, fiber rolls, sediment basins, and other measures to reduce the movement of construction-related sediments into Penitencia Creek and other sensitive habitats.
b. Installation of grit and oil trap systems, which shall be maintained in perpetuity.
c. Implementation of BMP's to prevent the discharge of construction debris and soils into Penitencia Creek during site clearing, grading and construction.
d. As required, dewatering the section of creek channel surrounding the work areas associated with outfall and bridge construction. The dewatering structure shall be to the approval of the City.
e. The applicant shall retain a construction manager familiar with NPDES permit requirements to monitor construction activities.

24. **Stormwater**: <u>During all construction activities</u>, the project applicant/developer shall adhere to the following Best Management Practices as suggested by BAAQMD: (P)
a. Watering all active construction areas twice daily and more often during windy periods. Active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers or dust palliatives;
b. Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least a 2 feet freeboard level within their truck beds;
c. Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
d. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites;

e. Sweep streets daily with water sweeper if visible soil material is carried onto adjacent public streets;
f. Hydro seed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 10 days or more);
g. Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.);
h. Limit traffic speeds on unpaved areas to 15 mph;
i. Install sandbags or other erosion control measures to prevent silt runoff to public roadways;
j. Plant vegetation in disturbed areas as quickly as possible; and
k. Suspend excavation and grading (all earthmoving or other dust-producing activities) or equipment during periods of high winds when watering cannot eliminate visible dust plumes.

25) **Affordability:** Prior to the issuance of any permit, the applicant shall provide documentation to the approval of the City Attorney that the following 101 affordable rental-housing units (100% of total number of units) will be available at a housing cost affordable to very low and low-income households. (H)

26) **Affordability:** The applicant shall provide the following information in the final Owner Participation Agreement, as it relates to the number of affordable housing units, types of units (two and three bedrooms) and the income levels of the proposed affordable housing units as illustrated below. (H)

Income	No. of Units	Type of Units
Very Low and Low-Income	50 Units	Two & three bedrooms
Very Low and Low-Income	50 Units	Two & three bedrooms
Manager Unit	1 Unit	Two bedroom

27) **Affordability:** As part of the identified public benefit for this project, prior to occupancy, the applicant shall provide to the City of Milpitas City Council for review and approval, an dispersement plan by affordability (i.e., very low, low) exhibit illustrating the location of the affordable housing units within the development. The various levels of affordable housing units shall be dispersed equally throughout the development and shall contain the same architectural features, design and amenities. (H)

28) **Affordability:** Income eligibility for the required number of affordable units shall be determined pursuant to the California Health and Safety Code Sections 50079.5, 50093 and 50105, which provide that the very low income limits established by the U.S. Department of Housing and Urban Development (HUD), are the stated limits for that income category. (H)

29) **Affordability:** The applicant and the City of Milpitas shall enter into Restriction Agreements that outline the provisions for maintaining the long-term affordability of the required affordable rental units. The Restriction Agreements shall be approved to form by the Milpitas

City Attorney's Office, executed by the City Manager and recorded with the County of Santa Clara. The Restriction Agreements shall require that the long-term affordability of the rental housing units shall remain in effect for the entire lifetime of the project. Any change to this requirement is subject to review and approval by the Milpitas City Council. (H)

30) **Affordability:** The applicant shall work with the Housing Division staff in establishing and determining the waiting list of eligible residents that are qualified for the project. (H)

31) **Affordability:** The established affordable rents for the rental apartment shall be pursuant to income eligibility provided by the California Health and Safety Code Sections 50079.5, 50093 and 50105 which provide the "very low" limits established by the U.S. Department of Housing and Urban Development (HUD) are the state limits for those income categories and State of California Redevelopment Agency Law. The final affordable rents established for the apartment units shall not exceed the maximum allowable rents for "very low" households as defined in the above code sections. Said rents shall be approved for consistency with the definitions by the Housing Division staff. (H)

32) **Property Management Agreement**: Prior to issuance of a building permit, the developer/property owner shall submit to City Housing Division staff, a copy of the same Property Management Agreement that is sent to the property investors defining the general maintenance and up-keep of the property. Said agreement shall also address maintenance of the Emergency Vehicle Access area. (H)

33) **Water and Wastewater**: The issuance of building permits to implement this land use development will be suspended if necessary to stay within (1) available water supplies, or (2) the safe or allocated capacity at the San Jose/Santa Clara Water Pollution Control Plant, and will remain suspended until water and sewage capacity are available. No vested right to the issuance of a Building Permit is acquired by the approval of this land development. The foregoing provisions are a material (demand/supply) condition to this approval. (E)

34) **Water, Sewer and Storm Drains**: Prior to issuance of any building permits, the developer shall obtain approval from the City Engineer of the water, sewer, and storm drain studies for this development. These studies shall identify the development's effect on the City's present Master Plans and the impact of this development on the trunk lines. If the results of the study indicate that this development contributes to the over-capacity of the trunk line, it is anticipated that the developer will be required to mitigate the overflow or shortage by construction of a parallel line or pay a mitigation charge, if acceptable to the City Engineer. (E)

35) **Drainage:** At the time of grading building permit issuance, the developer shall submit a grading plan and a drainage study prepared by a registered Civil Engineer. The drainage study shall analyze the existing and ultimate conditions and facilities. The study shall be reviewed and approved by the City Engineer and the developer shall satisfy the conclusions and recommendations of the approved drainage study prior to final map approval of the first phase of development. (E)

36) **Public Improvements**: Prior to any building permit issuance, the developer shall obtain design approval and bond for all necessary public improvements along South Main Street, including but not limited to curb and gutter, pavement, sidewalk, signage and striping, bus stops and bus pads, signal installation at South Main Street and Project main entrance, median installation along Main Street, street lights, street furniture installation, fire hydrants, storm drain, sewer and water services. Plans for all public improvements shall be prepared on Mylar (24"x36" sheets) with City Standard Title Block and submit a digital format of the Record Drawings (AutoCAD format is preferred) upon completion of improvements. The developer shall also execute a secured public improvement agreement. The agreement shall be secured for an amount of 100% of the engineer's estimate of the construction cost for faithful performance and 100% of the engineer's estimate of the construction cost for labor & materials. The locations of public facilities such as water meters, RP backflow preventers, sewer clean outs, etc. shall be placed so access is maintained and kept clear of traffic. All improvements must be in accordance with the Milpitas Midtown Specific Plan and Main Street Plan Line Study, and all public improvements shall be constructed and accepted by the City prior to building occupancy permit issuance of the first production unit. (E)

37) **Underground Parking**: All proposed underground-parking structures should be designed for the additional surcharge due to traffic loading from proposed and future public streets. (E)

38) **Community Facilities District**: Prior to any building permit issuance, the developer shall submit an executed petition to annex the subject property into the CFD 2005-1, with respect to the property, the special taxes levied by Community Facility District (CFD 2005-1) for the purpose of maintaining the public services. The petition to annex into the CFD shall be finalized concurrently with the final map recordation or prior to any building permit issuance, whichever occurs first. The developer shall comply with all rules, regulations, policies and practices established by the State Law and/or by the City with respect to the CFD including, without limitation, requirements for notice and disclosure to future owners and/or residents. (E)

39) **Traffic Impact Fee**: Prior to building permit issuance, the developer shall contribute its "fair share" of traffic impact fee in the amount of $22,579 (based on a Midtown impact fee of $113 per peak hour trip and Montague Expressway impact fee of $903 per peak hour trip). (E)

40) **Street Improvements**: Prior to building permit issuance, the developer shall contribute $115,092 toward its "fair share" costs of South Main Street median improvement (based on a South Main Street Median Island contribution fee of $278.00 per peak hour trip). At City's option, the developer may be required to construct the subject improvement in lieu of payment of contribution. (E)

41) **Fees**: The developer shall submit the following items with the building permit application and pay the related fees prior to final inspection (occupancy) by the Building Division:
   a. Storm water connection fee of $45,114 based on 2.69 acres @ $16,771 per acre. The water, sewer and treatment plant fee will be calculated at the time building plan check submittal.
   b. Water Service Agreement(s) for water meter(s) and detector check(s).

c. Sewer Needs Questionnaire and/or Industrial Waste Questionnaire.
Contact the Land Development Section of the Engineering Division at (408) 586-3329 to obtain the form(s). (E)

43) **Fees**: Prior to building permit issuance, the developer must pay all applicable development fees, including but not limited to, connection fees (water, sewer and storm), treatment plant fee, plan check and inspection deposit, and 2.5% building permit automation fee. (E)

44) **Tentative Map**: Prior to any building permit issuance, the developer shall submit a tentative parcel map for review and approval, and record the parcel map prior to construction of building structure above street grade. (E)

45) **Access Easement**: Prior to building permit issuance, the developer shall either record a reciprocal easement and maintenance agreement with the adjacent property owner on the south regarding the proposed Emergency Vehicle Access (EVA) or provide a recorded document regarding the access and maintenance/installation of private utility. The reciprocal agreement shall provide for the use of lands and maintenance of all private facilities including but not limited to roadway, wall along railroad, drainage, lighting, landscaping, and other common area facilities. (E)

46) **Under grounding**: Prior to building occupancy permit issuance, the developer shall underground all existing wires and remove the related poles within the proposed development, with the exception of transmission lines supported by metal poles carrying voltages of 37.5KV or more. All proposed utilities within the proposed development must also be under grounded. Show all existing utilities within and bordering the proposed development, and clearly identify the existing PG&E wire towers and state the wire voltage. (E)

47) **Sight Distance**: The developer shall not obstruct the noted sight distance areas as indicated on the City standard drawing #405. Overall cumulative height of the grading, landscaping & signs as determined by sight distance shall not exceed 2 feet when measured from street elevation. (E)

48) **Easements**: Prior to any building permit issuance, the developer shall dedicate necessary easements for public street right of way, public service utilities, water, and sanitary sewer purposes. (E)

49) **Wall**: Prior to building permit issuance, the developer shall record a 5-foot wide Private Wall Maintenance Easement (PWME), and enter into an encroachment permit agreement with the city for the maintenance of subject wall within the public right of way. The proposed wall plan needs to be included with the building site plan for review and approval. Prior to any building final inspection/occupancy permit issuance, the developer shall construct the proposed wall to the satisfaction of the Building Chief Official and Planning Department requirements. (E)

50) **Utilities**: All existing public utilities shall be protected in place and if necessary relocated as approved by the City Engineer. No permanent structure is permitted within City easements and no trees or deep-rooted shrub are permitted within City utility easements, where the easement is located within landscape areas. (E)

51) **Wastewater**: If necessary, developer shall obtain required industrial wastewater discharge approvals from San Jose/Santa Clara Water Pollution Control Plant (WPCP) by calling WPCP Industrial Source Control Inspector at (408) 945-5300. (E)

52) **Water**: Multistory buildings as proposed require water supply pressures above that which the city can normally supply. Additional evaluations by the applicant are required to assure proper water supply (potable or fire services). The developer shall submit an engineering report detailing how adequate water supply pressures will be maintained. Contact the Utility Engineer at 586-3345 for further information. (E)

53) **Solid Waste**: Prior to occupancy permit issuance, the developer shall construct solid waste enclosures to house the necessary solid waste bins. The enclosure shall be designed per the Development Guidelines for Solid Waste Services, and enclosure drains must discharge to sanitary sewer line. City review & approval of the enclosures are required prior to construction of the trash enclosures. (E)

54) **Solid Waste:** Per Chapter 200, Title V of Milpitas Municipal Code (Ord. No. 48.7) solid waste enclosures shall be designed to limit the accidental discharge of any material to the storm drain system. The storm drain inlets shall be located away from the trash enclosures (a minimum of 25 feet). This is intended to prevent the discharge of pollutants from entering the storm drain system, and help with compliance with the City's existing National Pollution Discharge Elimination System (NPDES) Municipal permit. (E)

55) **Solid Waste:** Per Chapter 200, Solid Waste Management, V-200-3.10, *General Requirement*, applicant / property owner or HOA shall not keep or accumulate, or permit to be kept or accumulated, any solid waste of any kind and is responsible for proper keeping, accumulating and delivery of solid waste. In addition, according to V-200-3.20 *Owner Responsible for Solid Waste, Recyclables, and Yard Waste*, applicant / property owner shall subscribe to and pay for solid waste services rendered. Prior to occupancy permit issuance (start of operation), the developer shall submit evidence to the City that a minimum level of refuse service has been secured using a Service Agreement with Allied Waste Services (formally BFI) for commercial services to maintain an adequate level of service for trash and recycling collection. After the applicant has started its business, the developer shall contact Allied Waste Services commercial representative to review the adequacy of the solid waste level of services. If services are determined to be inadequate, the developer shall increase the service to the level determined by the evaluation. For general information, contact BFI at (408) 432-1234. (E)

56) **Stormwater**: The U.S. Environmental Protection Agency (EPA) has empowered the San Francisco Bay Regional Water Quality Control Board (RWQCB) to administer the National Pollution Elimination Discharge System (NPDES) permit. The NPDES permit requires all dischargers to eliminate as much as possible pollutants entering our receiving waters. Construction activities which disturb one acre or greater are viewed as a source of pollution, and the RWQCB requires a Notice of Intent (NOI) be filed, along with obtaining an NPDES Construction Permit prior to the start of construction. A Storm Water Pollution Prevention Plan (SWPPP) and a site-monitoring plan must also be developed by the developer, and approved by the City prior to permit issuance for site clearance or grading. Contact the

RWQCB for questions regarding your specific requirements at (800) 794-2482. For general information, contact the City of Milpitas at (408) 586-3329. (E)

57) **Stormwater**: The developer shall comply with Regional Water Quality Control Board's C-3 requirements and implement the following:

At the time of building permit plan check submittal, the developer shall submit a "final" Stormwater Control Plan and Report. Site grading, drainage, landscaping and building plans shall be consistent with the approved Stormwater Control Plan. The Plan and Report shall be prepared by a licensed Civil Engineer and certified that measures specified in the report meet the C.3 requirements of the Regional Water Quality Control Board (RWQCB) Order, and shall be implemented as part of the site improvements. (E)

58) **Stormwater:** Prior to building permit issuance, the developer shall submit an Operation and Maintenance (O&M) Plan for the long-term operation and maintenance of C-3 treatment facilities. (E)

59) **Stormwater:** Prior to Final occupancy, the developer shall execute and record an O&M Agreement with the City for the operation, maintenance and annual inspection of the C.3 treatment facilities. (E)

60) **Stormwater:** Prior to building, site improvement or landscape permit issuance, the building permit application shall be consistent with the developer's approved Stormwater Control Plan and approved special conditions, and shall include drawings and specifications necessary to implement all measures described in the approved Plan. As may be required by the City's Building, Planning or Engineering Divisions, drawings submitted with the permit application (including structural, mechanical, architectural, grading, drainage, site, landscape and other drawings) shall show the details and methods of construction for site design features, measures to limit directly connected impervious area, pervious pavements, self-retaining areas, treatment BMPs, permanent source control BMPs, and other features that control stormwater flow and potential stormwater pollutants. Any changes to the approved Stormwater Control Plan shall require Site & Architectural ("S" Zone) Amendment application review. (E)

61) **Stormwater:** Prior to issuance of Certificate of Occupancy, the developer shall submit a Stormwater Control Operation and Maintenance (O&M) Plan, acceptable to the City, describing operation and maintenance procedures needed to insure that treatment BMPs and other stormwater control measures continue to work as intended and do not create a nuisance (including vector control). The treatment BMPs shall be maintained for the life of the project. The stormwater control operation and maintenance plan shall include the applicant's signed statement accepting responsibility for maintenance until the responsibility is legally transferred. (E)

62) **Demolition**: All utilities shall be properly disconnected before the existing building can be demolished. Show/state how the water service(s), sewer service(s) and storm service(s) will be disconnected. The water service shall be locked off in the meter box and disconnected or capped immediately behind the water meter for future use, if it is not to be used during the construction. If the existing water services will not be used for the proposed development, the service laterals shall be removed and capped at the main water line. The sanitary sewer

shall be capped off at the clean out near the property line or approved location if it is not to be used. The storm drain shall be capped off at a manhole or inlet structure or approved location if it is not to be used. (E)

63) **Landscape Irrigation**: In accordance with Chapter 5, Title VIII (Ord. 238) of Milpitas Municipal Code, for new and/or rehabilitated landscaping 2500 square feet or larger the developer shall:
a. Provide separate water meters for domestic water service & irrigation service. Developer is also encouraged to provide separate domestic meters for each tenant.
b. Comply with all requirements of the City of Milpitas Water Efficient Ordinance (Ord No 238). Two sets of landscape documentation package shall be submitted by the developer or the landscape architect to the Building Division with the building permit plan check package. Approval from the Land Development Section of the Engineering Division is required prior to building permit issuance, and submittal of the Certificate of Substantial Completion is required prior to final occupancy inspection.
Contact the Land Development Section of the Engineering Division at (408) 586-3329 for information on the submittal requirements and approval process. (E)

64) **Landscape Irrigation:** Per Chapter 6, Title VIII of Milpitas Municipal Code (Ord. No. 240), the landscape irrigation system must be designed to meet the City's recycled water guidelines and connect to recycled water system *when available.* The developer is encouraged to design the entire landscaped area for recycled water connection. If the site is not properly designed for recycled water at this time, the entire site will be required to retrofit when recycled water becomes available. Contact the Land Development Section of the Engineering Division at (408) 586-3329 for design standards to be employed. (E)

65) **Public Right-of-Way Work**: Prior to any work within public right of way or City easement, the developer shall obtain an encroachment permit from City of Milpitas Engineering Division. (E)

66) **Utilities**: The developer shall call Underground Service Alert (U.S.A.) at (800) 642-2444, 48 hrs prior to construction for location of utilities. (E)

67) **Other Approvals and Permits**: It is the responsibility of the developer to obtain any necessary permits or approvals from affected agencies and private parties, including but not limited to, Pacific Gas and Electric, SBC, Comcast, Union Pacific Railroad, Southern Pacific Railroad, Santa Clara Valley Transportation Agency, and City of Milpitas Engineering Division. Copies of any approvals or permits must be submitted to the City of Milpitas Engineering Division. (E)

68) **Tree Removal**: Per Milpitas Municipal Code Chapter 2, Title X (Ord. No. 201), the developer may be required to obtain a permit for removal of any existing tree(s). Contact the Street Landscaping Section at (408) 586-2601 to obtain the requirements and forms. (E)

69) **Construction Monitoring**: Prior to start of any construction, the developer shall submit a construction schedule and monitoring plan for City Engineer review and approval. The

construction schedule and monitoring plan shall include, but not be limited to, construction staging area, parking area for the construction workers, personal parking, temporary construction fencing, construction information signage and establish a neighborhood hotline to record and respond to neighborhood construction related concerns. The developer shall coordinate their construction activities with other construction activities in the vicinity of this project. The developer's contractor is also required to submit updated monthly construction schedules to the City Engineer for the purpose of monitoring construction activities and work progress. (E)

70) **Flood**: The Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) under the National Flood Insurance Program shows this site to be in Flood Zone "X". (E)

71) **Postal Service**: The developer shall obtain information from the US Postal Services regarding required mailboxes. Structures to protect mailboxes may require Building, Engineering and Planning Divisions review. (E)

72) **Exhibit "S"**: At the time of building plan check submittal, the developer shall incorporate the changes shown on Engineering Services Exhibit "S"(dated 3/5/2007) in the design plans and submit three sets of civil engineering drawings showing all proposed utilities to the Land Development Engineer for plan check. (E)

Acronyms

ADA	Americans with Disabilities Act
BMP	Best Management Practices
CDFG	California Department of Fish and Game
C3	Stormwater
DEIR	Draft Environmental Impact Report for the Elmwood Residential and Commercial Development Project
E	Engineering Dept. Special Conditions
EIR	Environmental Impact Report for the Elmwood Residential and Commercial Development Project
FEIR	Final Environmental Impact Report for the Elmwood Residential and Commercial Development Project
H	Housing Division Special Conditions
MM	Mitigation Measure from the Final Environmental Impact Report for the Midtown Specific Plan
MMC	Milpitas Municipal Code
NPDES	National Pollutant Discharge Elimination System
P	Planning Division Special Conditions
SWPPP	Stormwater Pollution Protection Plan

TRAFFIC ANALYSIS REPORT

EAST SIDE
SOUTH MAIN STREET

APN 086-22-023
ASPEN FAMILY APARTMENTS

CITY OF MILPITAS

November 14, 2006

BY

PANG ENGINEERS, INC.
Traffic and Transportation Consultants
P.O. Box 4255
Mountain View, CA 94040

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EXECUTIVE SUMMARY

GLOBAL PREMIER DEVELOPMENT proposes to develop a 101 dwelling unit residential apartment project on the east side of South Main Street, just north of Montague Expressway on APN 086-22-023.

This project expects to generate about 606 daily trips, with 49 AM peak hour trips and 55 PM peak hour trips. The site has an industrial land use "trip credit" of 192 daily trips, 21 AM peak hour and 23 PM peak hour trips. The net total trips expected are 414 daily trips, and 28 AM and 32 PM peak hour trips.

Four intersections were analyzed for traffic impacts from the proposed project for the AM and PM peak hours with the Highway Capacity Manual delay methodology for signalized intersections. Three intersections, namely, South Main Street / Cedar Way, South Main Street / South Abel Street, and Great Mall Parkway / South Abel Street will operate at a "D" or better level of service for the "Existing", "Existing + Approved Projects" or "Background", and "With Project" conditions.

These results satisfy the City of Milpitas' level of service policy of a "D" or better LOS.

A fourth intersection at Montague Expressway / South Main Street, which is a Congestion Management Program intersection, will operate at an "E" LOS for the AM peak hour and a "F" LOS for the PM peak hour. The AM peak hour satisfies the "E" or better level of service criteria. The PM peak hour LOS of "F" is also satisfactory since the increase in the volume to capacity ratio is less than 0.01 and the increase in the critical delay is less than 4 seconds when comparing the "With

Project" condition to the "Existing + Approved Trips" or "Background" condition. Thus, the CMP's LOS criteria is satisfied.

The mitigation measures suggested include standard City of Milpitas requirements for projects in this area.

1. The payment of the Traffic Impact Fee for projects in the Midtown Specific Plan area;
2. A "fair share" of the Montague Expressway Improvement Project Fee;
3. A "fair share" of the planned raised landscaped median island on South Main Street.

The traffic analysis report concludes that there is adequate capacity in the existing transportation system to develop the entire project as proposed.

TABLE II

SUMMARY
LEVEL OF SERVICE
SIGNALIZED INTERSECTIONS

INTERSECTION	Milpitas Intersection Number	EXISTING[1]			BACKGROUND[2]				WITH PROJECT						WITH GROWTH[3]		
		Intersection Delay[4] (sec/veh)	LOS	V/C[5]	Intersection Delay[4] (sec/veh)	LOS	V/C[5]	Avg. Crit. Delay[6] (sec/veh)	Intersection Delay[4] (sec/veh)	LOS	V/C[5]	Avg. Crit. Delay[6] (sec/veh)	Crit. Change in V/C	Change in Crit. Delay	Intersection Delay[4] (sec/veh)	LOS	V/C[5]
* 1. Montague Expressway / South Main St.	#26																
AM		67.8	E	0.663	71.1	E	0.678	---	70.5	E	0.682	---	---	---	99.3	F	1.165
PM		78.1	E-	0.983	82.3	F	1.005	100.3	82.3	F	1.005	100.3	0.00	0.00	89.6	F	1.044
2. South Main St. / Cedar Way	#24																
AM		18.0	B-	0.238	17.5	B-	0.272	---	18.4	B-	0.282	---	---	---	17.7	B	0.281
PM		14.9	B	0.207	14.1	B	0.238	---	15.0	B	0.248	---	---	---	14.1	B	0.247
3. South Main St. / South Abel St.	#23																
AM		15.8	B	0.149	15.7	B	0.171	---	15.5	B	0.174	---	---	---	15.6	B	0.180
PM		12.0	B	0.185	11.3	B+	0.221	---	11.4	B+	0.222	---	---	---	11.5	B+	0.229
4. Great Mall Parkway South Abel St.	#19																
AM		36.6	D+	0.669	40.9	D	0.815	---	41.2	D	0.819	---	---	---	42.3	D	0.846
PM		39.2	D	0.506	43.3	D	0.679	---	43.3	D	0.680	---	---	---	43.8	D	0.700

Footnotes:

LOS = Level of Service * CMP intersection

(1) Existing = represents lane configuration for "Background" and "With Project" conditions
(2) Existing + Approved Projects = "Background Traffic" condition
(3) Expected Growth = "Existing" volumes x 1.04 plus ATI and With Project Trips; for information only
(4) Intersection delay = average delay for the whole intersection
(5) V/C = critical volume / capacity ratio
(6) Average Critical Delay in seconds per vehicle

LOS calculations with TRAFFIX per Santa Clara Valley Transportation Authority Congestion Management Program Guidelines.
Congestion Management Program Guidelines.

TRAFFIC ANALYSIS REPORT

I. INTRODUCTION

GLOBAL PREMIER DEVELOPMENT proposes to develop a 101 dwelling unit residential apartment project on the east side of South Main Street, just north of Montague Expressway on APN 086-22-023.

The objective of this report is to analyze the existing and future traffic conditions, provide an estimate of traffic generation for the project, assign and distribute the trips to critical intersections, and suggest possible street improvements and / or mitigation measures if required.

II. SITE CONDITIONS

The subject property is currently occupied with two industrial buildings of approximately 24,000 square feet of gross floor area (GFA). The site is occupied by land uses such as Andy's Auto Sport, Milpitas Tile, industrial offices for Fleetwood Machinery, etc. South Main Street is a 4 lane major north-south arterial street with a posted speed limit of 35 miles per hour (mph). South Abel Street is a 4 lane major north-south arterial street and operates as the "through" street at the "Y" with the curvilinear portion of South Main Street northerly of the site. Montague Expressway is a major east-west 6 lane expressway of which 2 lanes are High Occupancy Vehicle (HOV) lanes south and east of South Main Street, with a posted speed limit of 45 mph. Great Mall Parkway is a 6 lane east-west major arterial street with a posted speed limit of 40 mph. Great Mall Parkway intersects with South Abel Street.

The site is bounded on the south by Saf-Keep Self Storage, a vacant lot for future residential development under construction, a Jack in the Box, and a Shell gas station. To the east are existing railroad tracks. To the north are other miscellaneous land uses such as Precision Tire, NRG Car Stereo, Stevens Auto Works, Exact Motor Sports, Main Street Auto Center, Worldwide Auto Repair, etc. To the west is South Main Street and westerly thereof, the South Bay Tech Center Offices, US Health Works Medical Group, and a Union 76 gas station. (Plate 1)

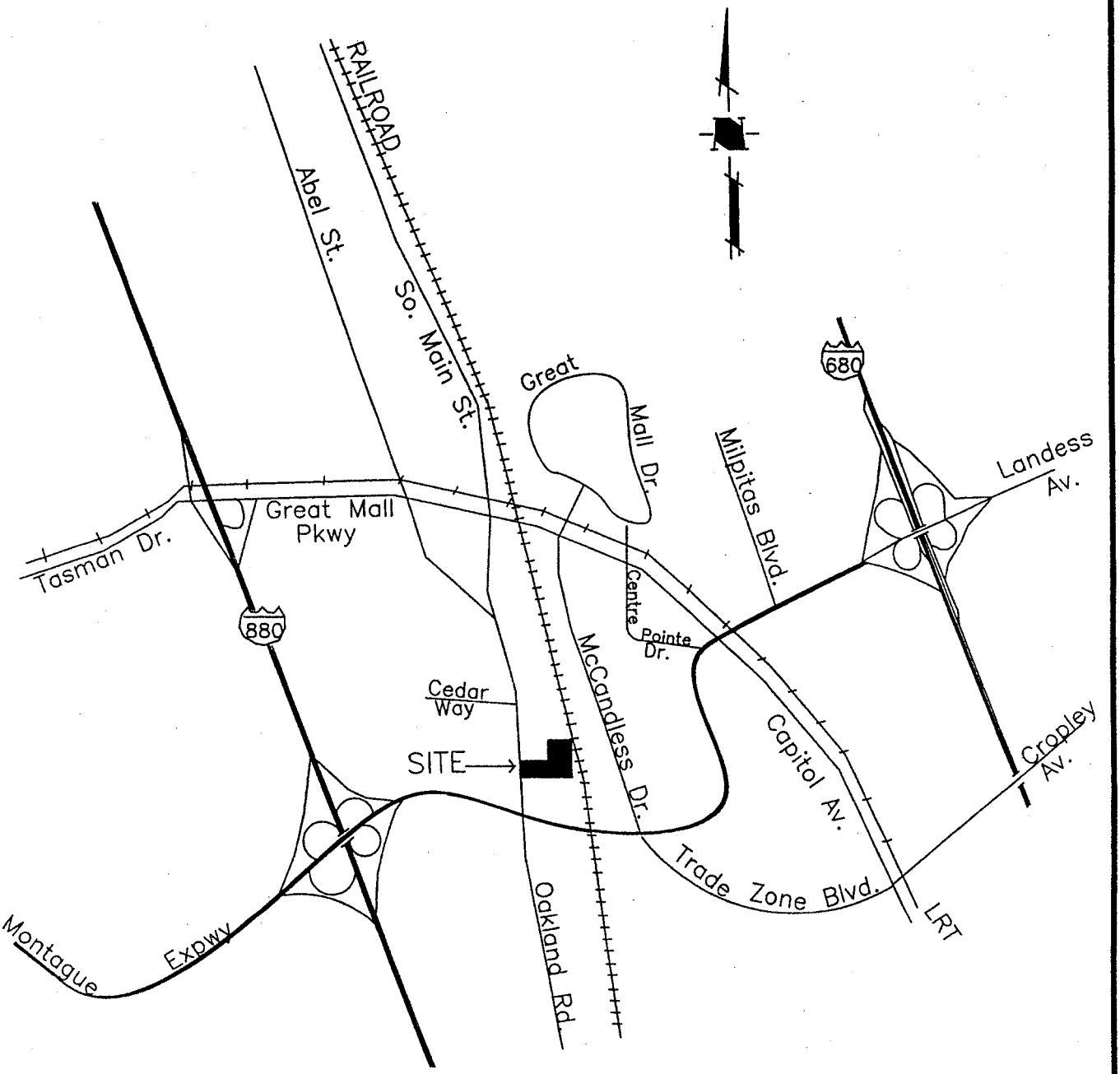

PLATE 1

VICINITY MAP

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#0605
4-11-06

III. TRAFFIC CHARACTERISTICS

A. Trip Generation

The project site is planned for a 101 dwelling units of residential apartments. The project is expected to generate about 606 trips per day. During the AM peak hour, 49 trips will occur with 10 inbound and 39 outbound. For the PM peak hour, 55 trips are expected with 38 inbound and 17 outbound.

The "existing" land use on the site is industrial with 24,000 square feet, and has a conservative trip credit[1] of 192 daily trips, 21 AM and 23 PM peak hour trips.

The net total trips expected is thus 414 daily trips. During the AM peak hour, about 28 trips are expected with a negative 9 inbound and 37 outbound. The AM peak hour is evaluated for 37 outbound trips. For the PM peak hour, about 32 trips are expected with 33 inbound and a negative 1 outbound. The PM peak hour is evaluated for the 33 inbound trips. For both the AM and PM peak hours, the negative trips due to the "trip credit" was ignored. Thus, the "worst case" condition is evaluated (Table I).

---

[1] Conservative "trip credit" with lower trip rate per 1000 square feet per City of Milpitas.

TABLE I

TRIP GENERATION

LAND USE	UNIT	TRIP RATE	DAILY TRIPS	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
				IN	OUT	IN	OUT
EXISTING USE							
1. Industrial							
	24,000 sq. ft.	8 [a]	192	90%	10%	20%	80%
AM		0.88[b]	.....	19	2		
					21		
PM		0.96[b]	.....	.....	.....	5	18
							23
TOTAL EXISTING USE :							
DAILY			192				
AM	.....	.....		19	2		
					21		
PM	.....	.....	.....	.....	.....	5	18
							23

TABLE I

TRIP GENERATION
(continued)

LAND USE	UNIT	TRIP RATE	DAILY TRIPS	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
				IN	OUT	IN	OUT
PROPOSED USE:							
1. Residential Apartments							
	101 D.U.	6 [c]	606	20%	80%	70%	30%
AM		0.48 [d]	.....	10	39		
PM		0.54 [d]	.....	.....	.....	38	17
TOTAL PROPOSED USE					49		55
DAILY			606				
AM	.....	.....	.....	10	39		
PM	.....	.....	.....	.....	.....	38	17
					49		55

TABLE I

TRIP GENERATION
(continued)

LAND USE	UNIT	TRIP RATE	DAILY TRIPS	AM PEAK HOUR TRIPS		PM PEAK HOUR TRIPS	
				IN	OUT	IN	OUT
DIFFERENCES: PROPOSED LESS EXISTING							
DAILY			414				
AM	.....	.....	.....	(9)	37		
PM	.....	.....	.....	.....	28	33	(1) 32

AM = Morning peak hour
PM = Evening peak hour

D.U. = Dwelling Unit
sq. ft. = Square Feet

Source: San Diego Association of Governments, "Traffic Generation Rates", April, 2002

(a) Per 1000 square feet per day.
(b) Per 1000 square feet per peak hour.
(c) Per dwelling unit per day.
(d) Per dwelling unit per peak hour.

B. Trip Distribution and Assignment

The trips are distributed and assigned based on existing traffic volumes, and other projects in the proximity of this development. The trip distribution is shown below and on Plate 2.

A summary of the trip distribution is as follows:

1. North (25%)	
I-880	8%
Abel Street	5%
Main Street	5%
Main Street to Great Mall	7%
2. South (24%)	
Oakland Road	8%
I-880	16%
3. East (35%)	
Montague Expressway	16%
Trade Zone Boulevard	19%
4. West (16%)	
Tasman Drive	10%
Montague Expressway	6%
TOTAL	100%

The trips are more specifically assigned on Plates 3A and 3B for the AM peak hour, and Plates 3C and 3D for the PM peak hour.

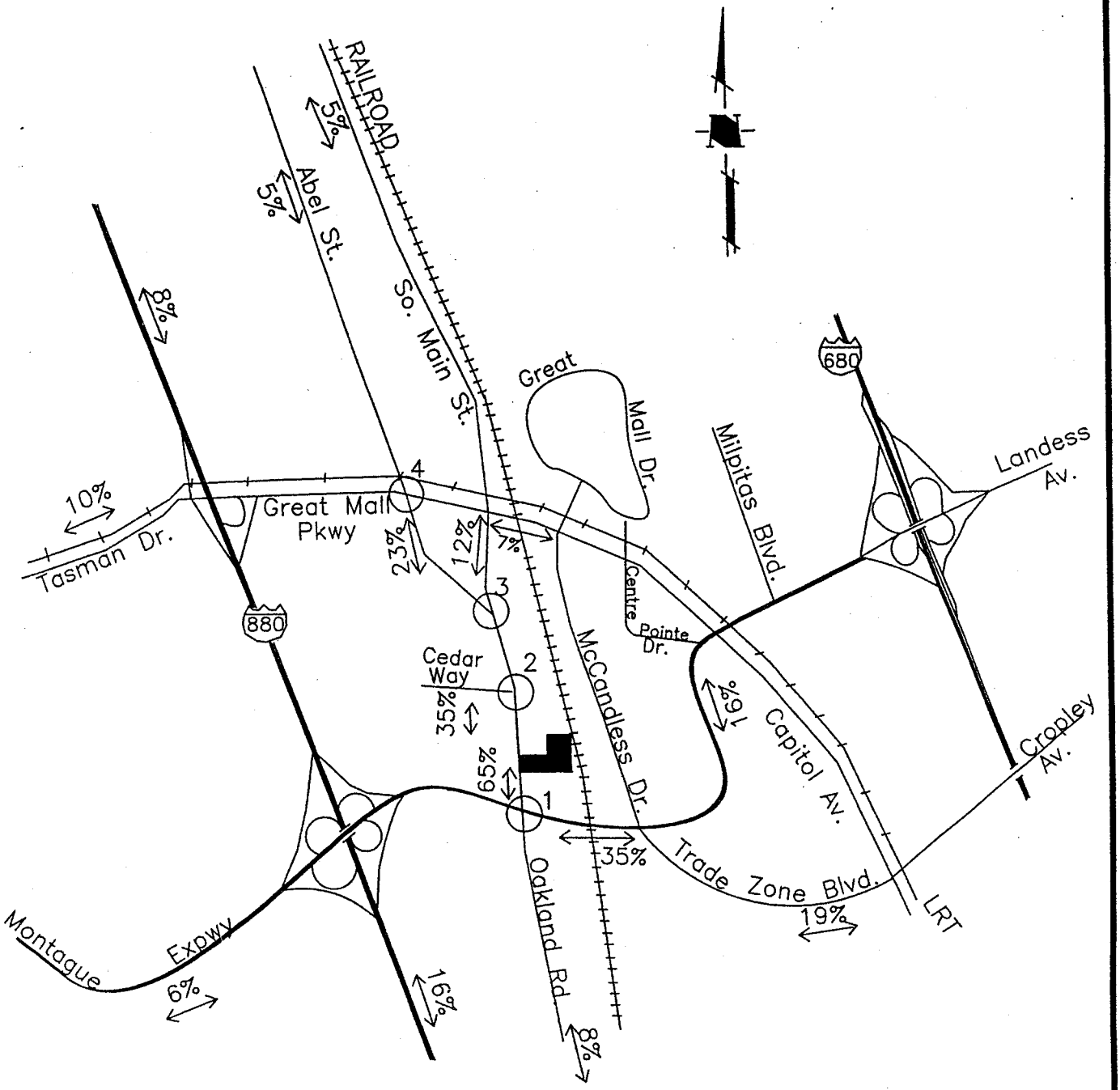

PLATE 2

TRIP DISTRIBUTION

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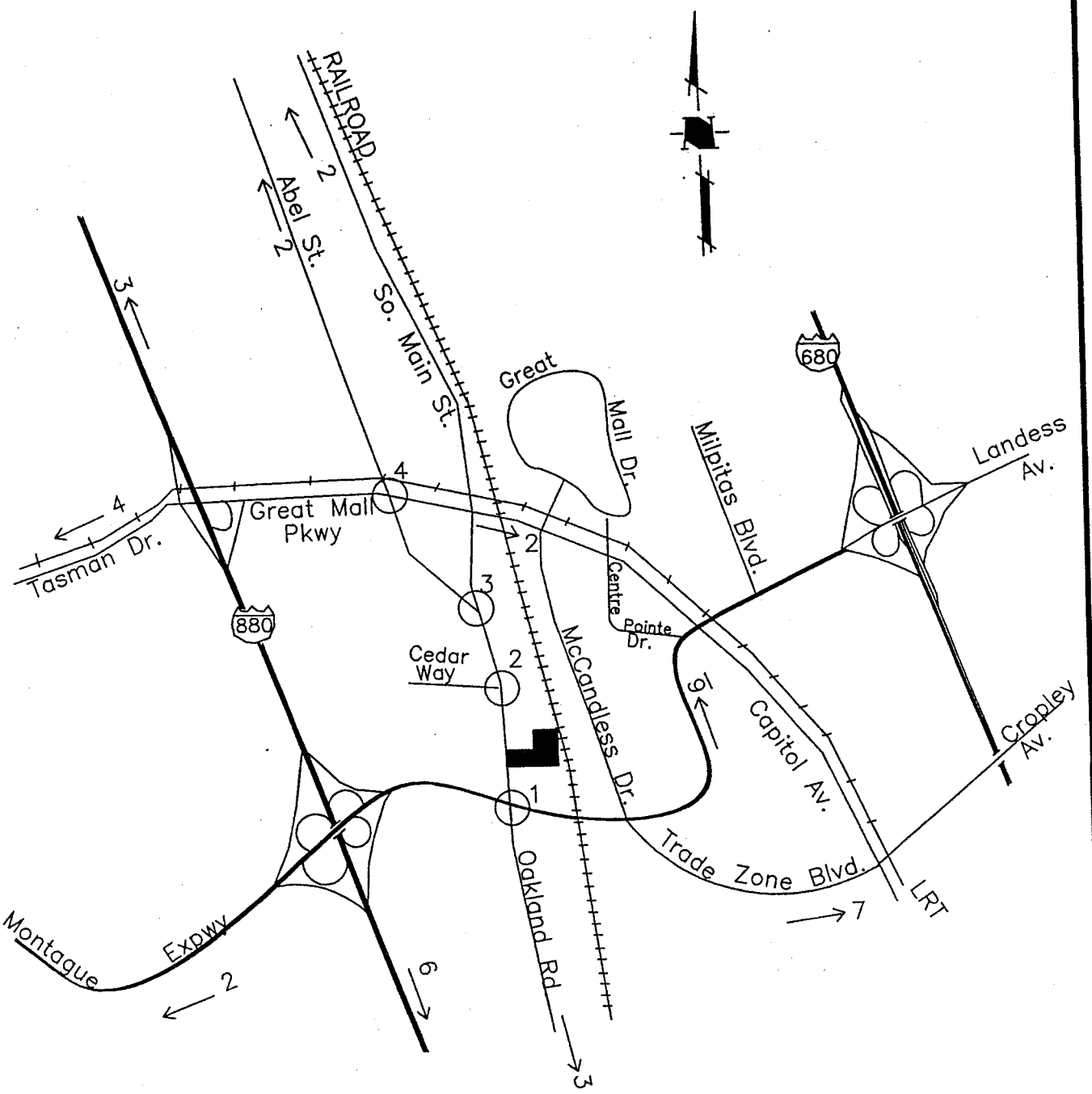
#0605
4-11-06



LEGEND:

○ Critical Intersection

■ Project Site

PLATE 3A
TRIP ASSIGNMENT
AM PEAK HOUR

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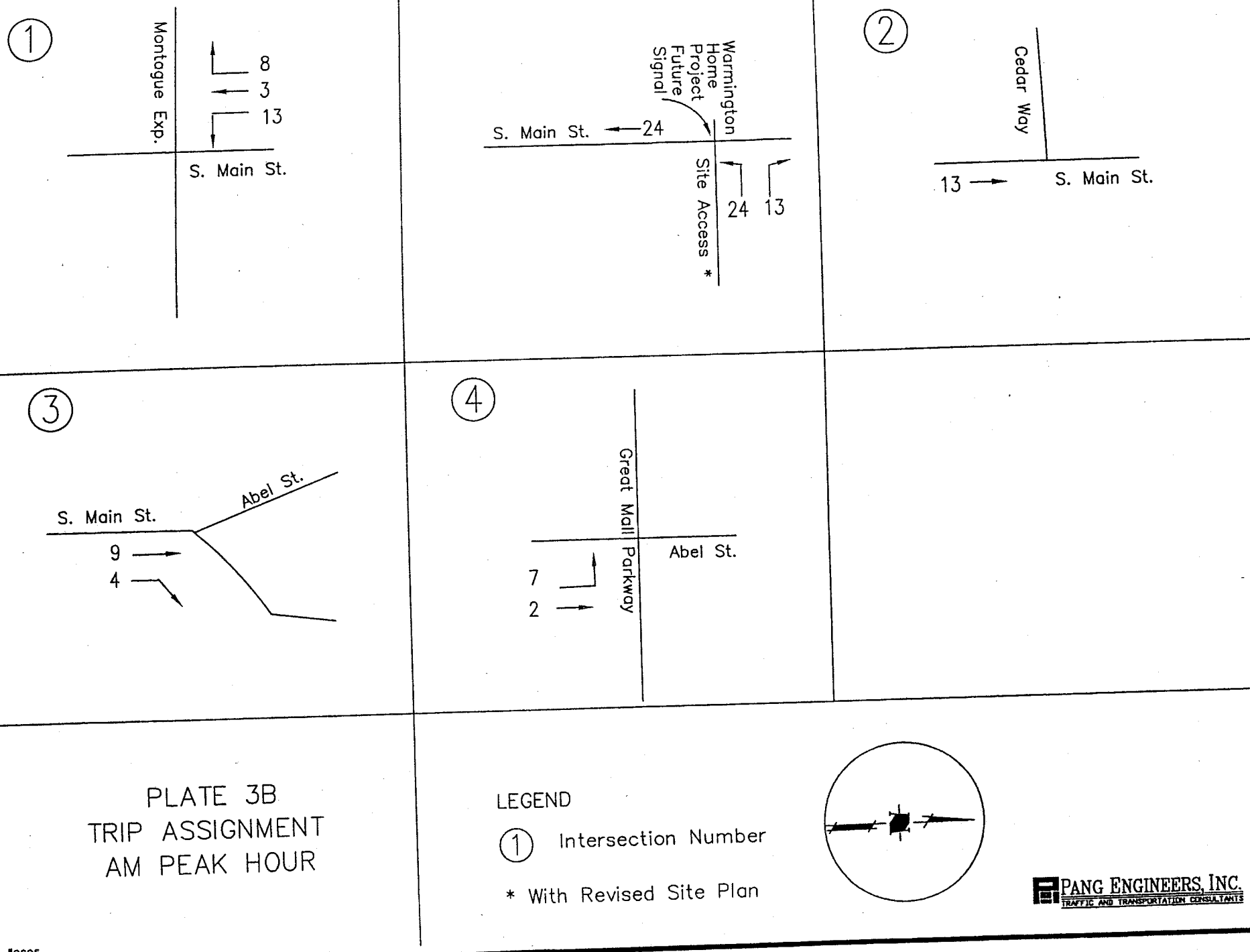
TRAFFIC AND TRANSPORTATION CONSULTANTS

#0605
4-11-06


1
Montague Exp.
8
3
13
S. Main St.
Warmington Home Project Future Signal
S. Main St.
24
Site Access *
24
13
2
Cedar Way
13
S. Main St.
3
S. Main St.
Abel St.
9
4
4
Great Mall Parkway
Abel St.
7
2
PLATE 3B
TRIP ASSIGNMENT
AM PEAK HOUR
LEGEND
1 Intersection Number
* With Revised Site Plan
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#0605

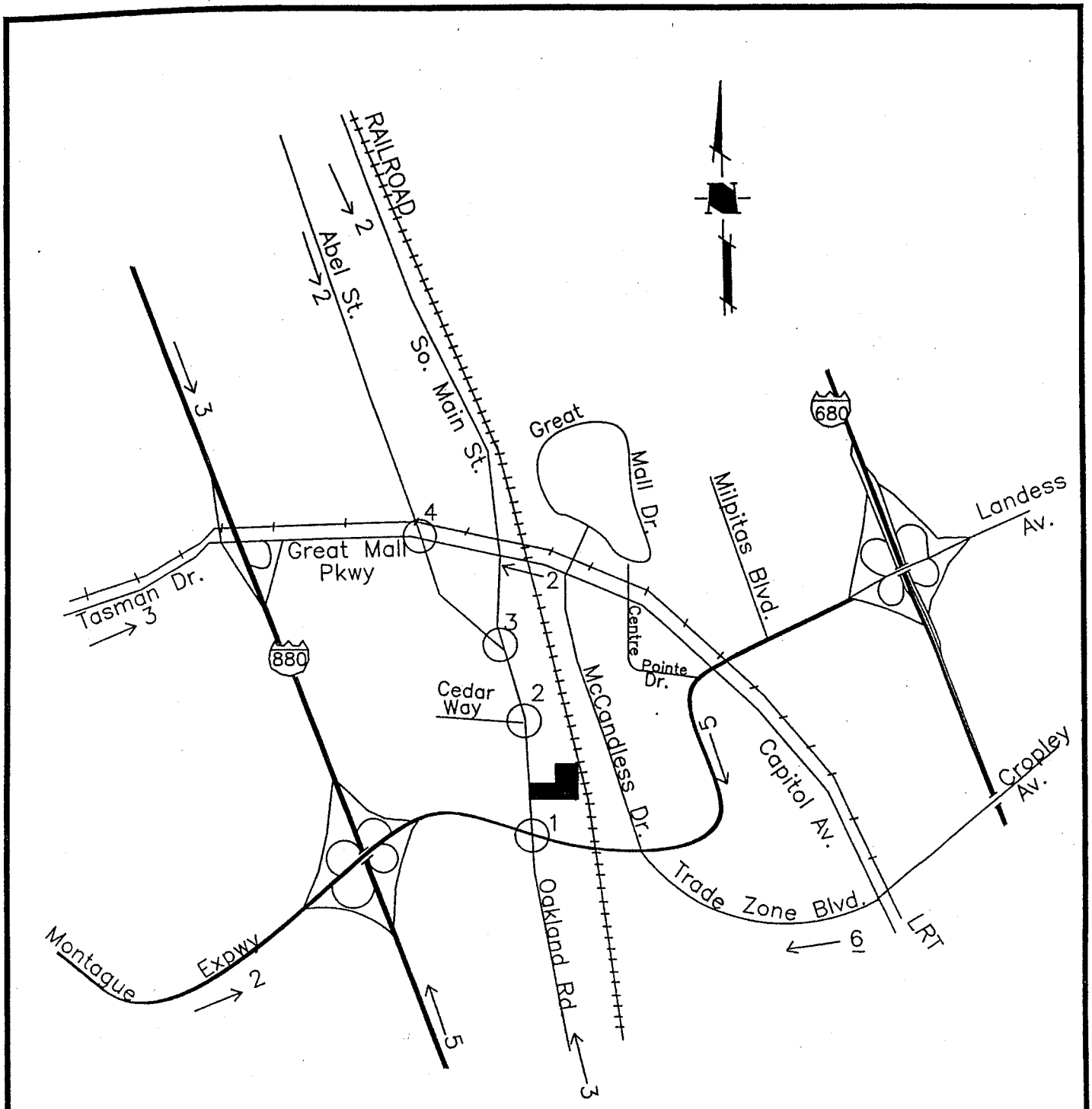

PLATE 3C
TRIP ASSIGNMENT
PM PEAK HOUR

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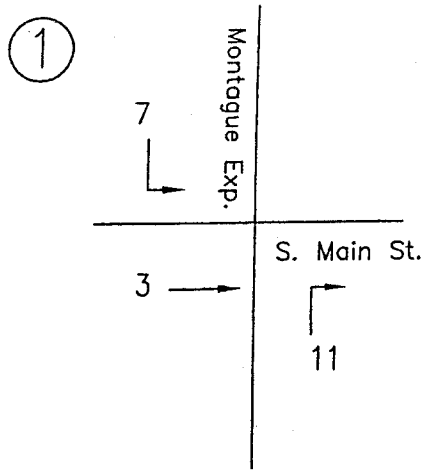
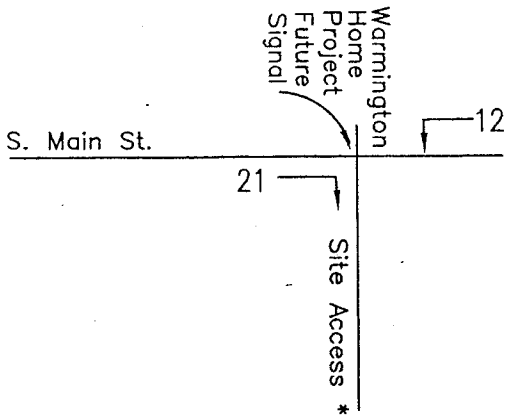
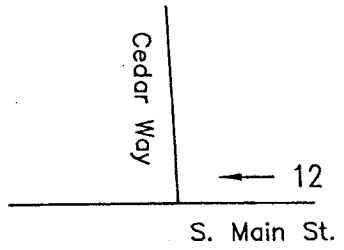
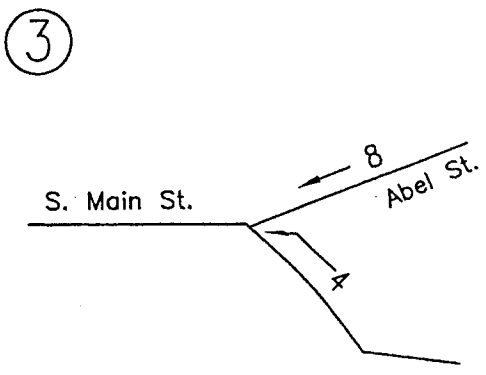
#0605
4-11-06









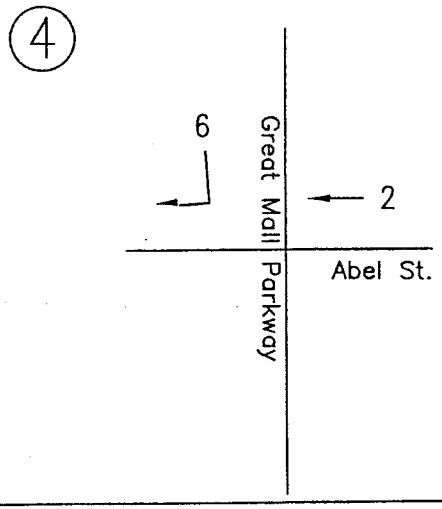
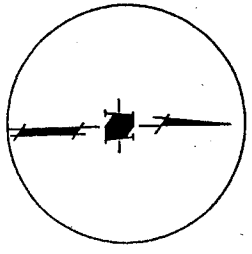


PLATE 3D
TRIP ASSIGNMENT
PM PEAK HOUR

LEGEND

(1) Intersection Number

* With Revised Site Plan



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C. Level of Service

A maximum of four signalized intersections in the vicinity of the project site were selected by the City of Milpitas for level of service analyses for the AM and PM peak hours. The intersections were evaluated with the TRAFFIX[1] software program for several conditions:

1. Existing (year 2005 / 2006)[2];
2. Existing + Approved Projects ("Background Traffic");
3. "Background Traffic" + Project ("With Project");
4. Expected or Future Growth ("With Growth").

A Congestion Management Program analysis was performed at one of the four signalized critical intersections, namely Montague Expressway at South Main Street.

The "Existing" calculations and list of approved and pending projects were supplied by the City of Milpitas. The approved trips inventory (ATI)[3] were recently updated and reviewed by the City of Milpitas. All of the ATI trips were assigned to the critical intersections for the AM and PM peak hours. The project trips were added to the "Background" condition for the "With Project" condition. The fourth condition "Expected or Future Growth" or "With Growth" which represents the near term growth of traffic, was calculated with the assumption of a 2% per annum growth rate for two years of the "Existing" or base volumes.

---

(1) Traffic Impact Analysis Software, Dowling Associates, Inc.

(2) "Existing" counts were supplied by the City of Milpitas. Where the counts were older than 12 months, they were deemed as representative volumes and no new counts were required.

(3) The approved trips inventory (ATI) supplied by the City of Milpitas were reviewed and where discrepancies were found, the higher volumes were used to denote a "worst case" condition.

The critical volume to capacity (V/C) ratios, average delay and level of service (LOS) were calculated based on the Highway Capacity Manual Delay Methodology for signalized intersections.

The City of Milpitas' Transportation Policy requires a minimum standard LOS of "D". A significant impact is defined as the proposed project causes the LOS to deteriorate from LOS "D" or better under the "Background" condition to the unacceptable "E" or "F" – LOS. For intersections operating at the unacceptable "E" or "F" – LOS under the "Background" condition, a significant impact is defined as the proposed project causes:

1. an increase in critical delay value of 4.0 or more seconds, AND
2. an increase in the critical V/C ratio of 0.010 or more.

All four intersections are assumed to operate with the existing lane patterns and signal timing. Since there is the potential of a future raised landscaped median island on South Main Street from Montague Expressway northerly past Cedar Way to South Abel Street to the Great Mall Parkway, the trip assignments were adjusted with that future street improvement assumed in place as a Capital Improvement Project.

The three signalized City of Milpitas intersections, namely South Main Street / Cedar Way, South Main Street / South Abel Street, and Great Mall Parkway / South Abel Street will operate with a "D" or better LOS for the "Existing", "Existing+Approved Projects" or "Background", and "With Project" conditions. Additionally, the "With Growth" condition is shown to also be at a "D" LOS. A summary of the LOS results is contained on Table II.

TABLE II

SUMMARY
LEVEL OF SERVICE
SIGNALIZED INTERSECTIONS

	INTERSECTION	Milpitas Inter-section Number	EXISTING[1]			BACKGROUND[2]				WITH PROJECT						WITH GROWTH[3]		
			Intersection Delay[4] (sec/veh)	LOS	V/C[5]	Intersec-tion Delay[4] (sec/veh)	LOS	V/C[5]	Avg. Crit. Delay[6] (sec/veh)	Intersec-tion Delay[4] (sec/veh)	LOS	V/C[5]	Avg. Crit. Delay[6] (sec/veh)	Crit. Change in V/C	Change in Crit. Delay	Intersec-tion Delay[4] (sec/veh)	LOS	V/C[5]
*	1. Montague Expressway / South Main St.	#26																
	AM		67.8	E	0.663	71.1	E	0.678	---	70.5	E	0.682	---	---	---	99.3	F	1.165
	PM		78.1	E-	0.983	82.3	F	1.005	100.3	82.3	F	1.005	100.3	0.00	0.00	89.6	F	1.044
	2. South Main St. / Cedar Way	#24																
	AM		18.0	B-	0.238	17.5	B-	0.272	---	18.4	B-	0.282	---	---	---	17.7	B	0.281
	PM		14.9	B	0.207	14.1	B	0.238	---	15.0	B	0.248	---	---	---	14.1	B	0.247
	3. South Main St. / South Abel St.	#23																
	AM		15.8	B	0.149	15.7	B	0.171	---	15.5	B	0.174	---	---	---	15.6	B	0.180
	PM		12.0	B	0.185	11.3	B+	0.221	---	11.4	B+	0.222	---	---	---	11.5	B+	0.229
	4. Great Mall Parkway South Abel St.	#19																
	AM		36.6	D+	0.669	40.9	D	0.815	---	41.2	D	0.819	---	---	---	42.3	D	0.846
	PM		39.2	D	0.506	43.3	D	0.679	---	43.3	D	0.680	---	---	---	43.8	D	0.700

Footnotes:

LOS = Level of Service * CMP intersection

(1) Existing = represents lane configuration for "Background" and "With Project" conditions
(2) Existing + Approved Projects = "Background Traffic" condition
(3) Expected Growth = "Existing" volumes x 1.04 plus ATI and With Project Trips; for information only
(4) Intersection delay = average delay for the whole intersection
(5) V/C = critical volume / capacity ratio
(6) Average Critical Delay in seconds per vehicle

LOS calculations with TRAFFIX per Santa Clara Valley Transportation Authority Congestion Management Program Guidelines.
Congestion Management Program Guidelines.

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TRAFFIC AND TRANSPORTATION CONSULTANTS

For one CMP intersection, namely Montague Expressway / South Main Street, the significant criteria is defined differently. The minimum standard is an "E" – LOS. A significant impact is defined as the deterioration from LOS "E" or better under the "Background" condition to the unacceptable "F" LOS. For intersections operating at the unacceptable "F" – LOS under the "Background" condition, a significant impact is defined as the proposed project causes:

1. an increase in critical delay value of 4.0 or more seconds, AND
2. an increase in the critical V/C ratio of 0.010 or more.

A summary of the CMP - LOS results are contained on Table II. For the "Existing", "Existing+Approved Projects" or "Background" and "With Project" conditions, the one CMP intersection at Montague Expressway / South Main Street will operate with an "E" or better LOS for the AM peak hour. However, for the PM peak hour, the intersection operates at an "E" LOS for the "Existing" condition, and a "F" LOS for the "Background" and "With Project" conditions. When comparing the "With Project" and "Background" conditions for the PM peak hour, the increase in critical delay is zero seconds or less than 4.0 seconds, and the increase in the V/C ratio is also zero or less than 0.01. Additionally, for information purposes only, the "With Growth" condition will be at an "F" LOS for both the AM and PM peak hours.

Thus, the three City of Milpitas intersection and one CMP intersection satisfies the LOS thresholds of the City and CMP respectively with no significant traffic impacts.

D. MITIGATION MEASURES

Notwithstanding the fact that the four critical intersections which were analyzed resulted in satisfying the City of Milpitas and CMP LOS requirements, the City of Milpitas will apply standard traffic and transportation engineering requirements for projects in this area. The "mitigation measures" are as follows:

1. The payment of the Traffic Impact Fee for projects in the Midtown Specific Plan area;
2. A "fair share" of the Montague Expressway Improvement Project Fee;
3. A "fair share" of the planned raised landscaped median island on South Main Street.

E. ACCESS AND CIRCULATION

Vehicular access to and from the project site is planned with one driveway on the east side of South Main Street at the northerly side of the project site. The driveway was relocated on the revised site plan in cooperation with the proposed Warmington Homes project on the west side of S. Main Street, and the preliminary S. Main Street Corridor Study future planned median openings. During the course of discussions with the City of Milpitas, the consensus was that a future median opening that aligned the two proposed driveways, one on the west for Warmington Homes, and the other on the east for this project on S. Main Street south of Cedar Way, would require that a traffic signal be installed to facilitate access to and from both projects.

The existing driveway on the south side of the project site would be available only as an emergency vehicle access (EVA). A gate will be installed at the entrance and bollards added at an appropriate location. Also, the on-site

circulation will have an aisle or street to connect both northerly and southerly to possible future developments.[1]

The one northerly driveway will operate with all movements permitted once the City of Milpitas constructs the raised landscaped median island and the traffic signal is installed on South Main Street. The traffic signal will need to be constructed prior to the occupancy of this project.[2] The trip assignments have been revised and assume that the traffic signal and median island improvements are in place.

The street improvements fronting the property along South Main Street should be constructed to the South Main Street Plan Line Study Standards currently under development. Sidewalks should be provided in the border area between the property line and face of curb, and the existing driveway closed and the new driveway constructed.

F. PUBLIC TRANSIT

The Santa Clara Valley Transportation Authority (SCVTA) supplies bus service on Montague Expressway and South Main Street in proximity to the project site. Additionally, there is a Light Rail Transit (LRT) in operation above the Great Mall Parkway. The routes, approximate hours of operation, and headways, are as follows:

---

(1) Refer to the Revised Site Plan in the Appendix.

(2) Warmington Homes and the Aspen Family Apartments project will prepare a Memorandum of Understanding to finalize each developer's responsibility for the construction of the traffic signal. The City will place a condition on this development that a traffic signal must be completely installed and operational prior to the occupancy of any residential units.

	Routes	Hours of Operation (weekday)	Headways (minutes)
Montague Expressway	321	3 trips – AM 3 trips – PM	Weekday only Weekday only
South Main Street	66	5:00 AM to 11:30 PM 6:00 AM to 11:00 PM	15 peak weekdays 30 midday weekday 30 weekends
Great Mall Parkway	LRT	5:00 AM to midnight	15 daily

The average daily bus and LRT loadings[1] as of April, 2006 for a weekday are as follows:

	LINE	ON	OFF	TOTAL
1. Westbound Montague Expressway far side South Main Street	321	4	0	4
2. Eastbound Montague Expressway far side South Main Street	321	0	1	1
3. Northbound South Main Street far side Montague Expressway	66	10	28	38
4. Southbound South Main Street far side Montague Expressway	66	27	6	33
5. Northbound South Main Street far side Cedar Way	66	20	15	35
6. Southbound South Main Street far side Cedar Way	66	19	27	46
TOTAL		80	77	157
Great Mall Parkway	LRT	866	1025	1891

Refer to Plate 4 for the bus and LRT routes.

[1] Source: Santa Clara Valley Transportation Authority, Service Development Department.

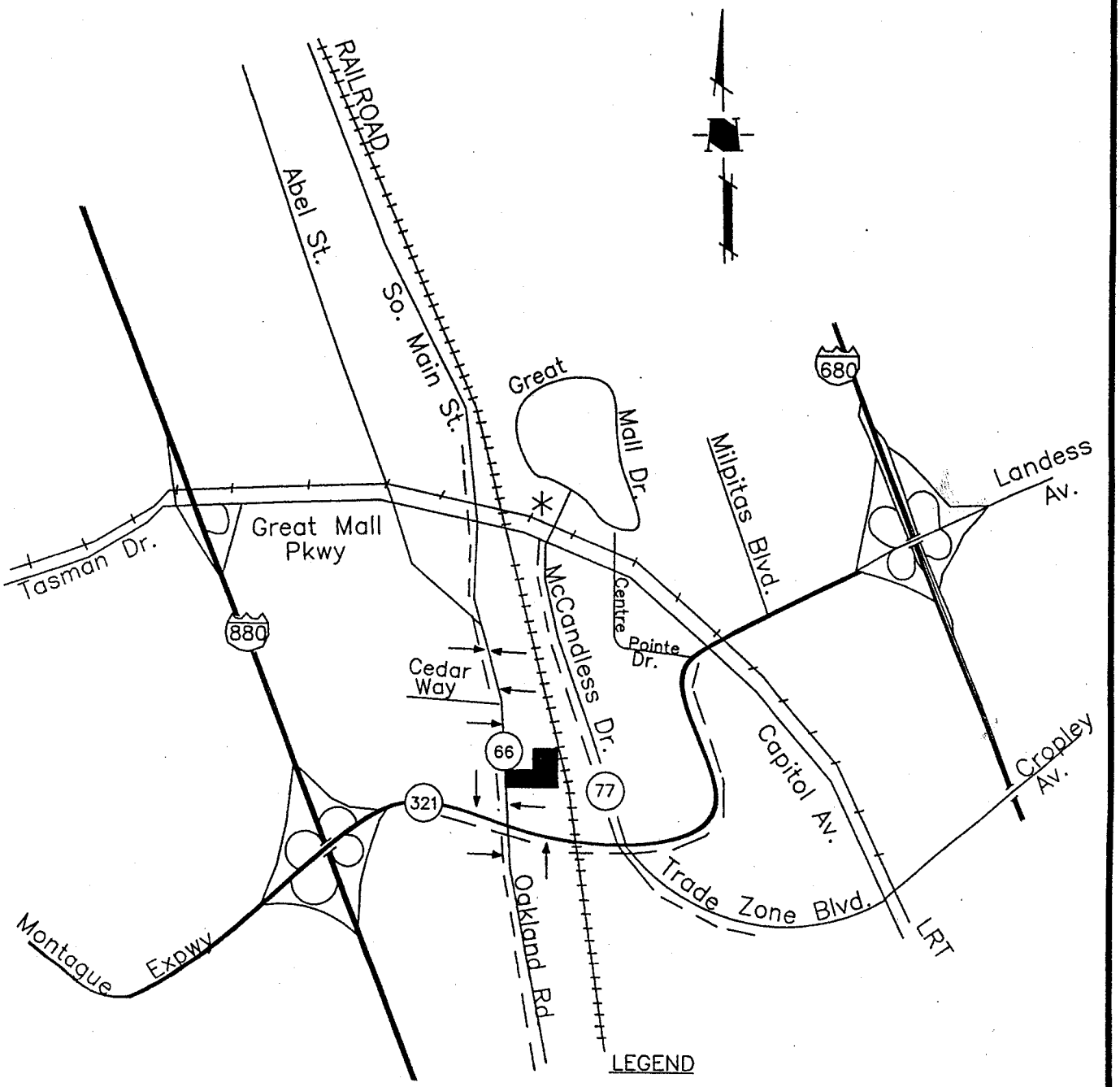

PLATE 4

BUS and LRT ROUTES

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TRAFFIC AND TRANSPORTATION CONSULTANTS

#0605
4-11-06

G. BICYCLE ROUTES

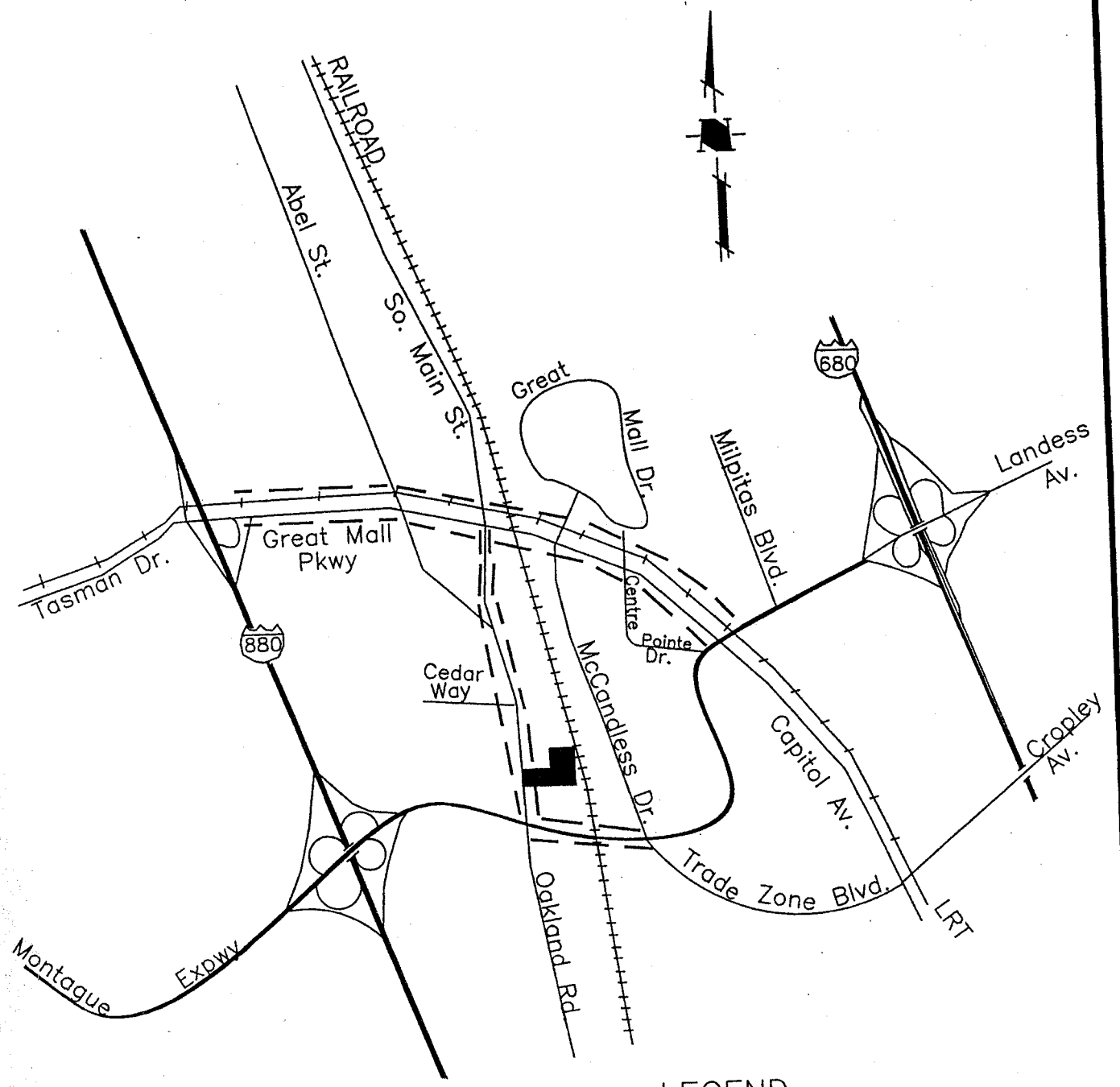
The City of Milpitas Bicycle Routes in the vicinity of the project site are shown on Plate 5.

IV. IMPROVEMENTS

The following street improvements relate to suggestions to improve access, minimize congestion and enhance the traffic carrying capability of streets in the proximity of the development.

1. Improve to City of Milpitas standards, the frontage improvements on South Main Street, including the border area between the face of curb and the property line with a sidewalk, and the closure of the existing driveway and construction of the new driveway to the S. Main Street Plan Line Study standards currently under development.

2. Contribute and / or pay towards standard City of Milpitas improvement projects within the Midtown Specific Plan Area:
   a. the payment of the Traffic Impact Fee for projects in the Midtown Specific Plan area;
   b. a "fair share" of the Montague Expressway Improvement Project Fee;
   c. a "fair share" of the planned raised landscaped median island on South Main Street.



LEGEND

BICYCLE ROUTE (near Project Site)

Project Site

PLATE 5
BICYCLE ROUTES

PANG ENGINEERS, INC.
TRAFFIC AND TRANSPORTATION CONSULTANTS

#0605
4-11-06

V. CONCLUSIONS

The peak period traffic impacts have been evaluated for this 101 dwelling unit residential apartment project. Several conclusions may be extracted from this report. They are related to trip generation, circulation and access, and intersection levels of service.

1. This project is expected to generate about 606 trips per day, 49 trips during the AM peak hour, and 55 trips during the PM peak hour. With the trip credit for existing industrial land use, the net total estimate is 414 daily trips. During the AM peak hour, about 28 trips are expected with a negative 9 inbound and 37 outbound. The AM peak hour is evaluated for 37 outbound trips. For the PM peak hour, about 32 trips are expected with 33 inbound and a negative one outbound. The PM peak hour is evaluated for the 33 inbound trips.

2. Three of the City of Milpitas' critical signalized intersections at South Main Street / Cedar Way, South Main Street / South Abel Street, and Great Mall Parkway / South Abel Street will operate with a "D" or better level of service for the "Existing", "Background", and "With Project" conditions. Additionally, the three intersections will operate at a "D" or better LOS for the "With Growth" condition.

   Thus, the City of Milpitas' "D" or better LOS policy is satisfied with an insignificant impact.

3. The one CMP critical intersection, namely Montague Expressway / South Main Street will operate with an "E" or better level of service for the "Existing", "Background" and "With Project" conditions for the AM peak hour. For the PM peak hour, the intersection operates at an "F"

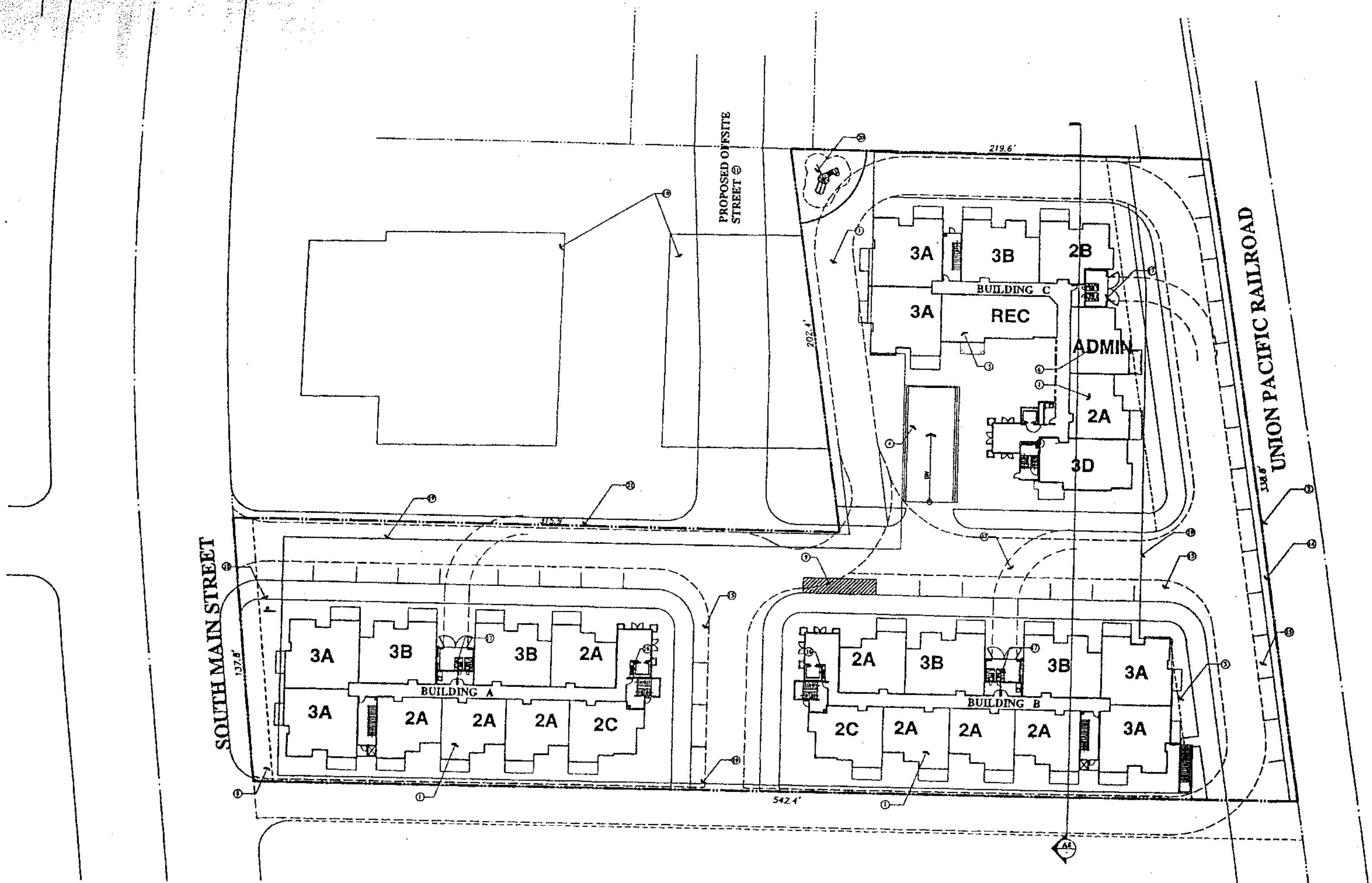
LOS. However, for the PM peak hour, the increase in the critical delay is less than 4.0 seconds and the increase in the volume to capacity ratio is less than 0.01. Thus, the CMP's LOS policy is satisfied with an insignificant impact.

4. Vehicular access and circulation as proposed on the site plan appear adequate for automobiles with the suggested improvements in place.

The traffic analysis report concludes that there is adequate capacity in the existing transportation system to develop the entire project as proposed.

APPENDIX

Site Plan



KEYNOTE LEGEND

1. PROPOSED 4 STORY CONDOMINIUM PROJECT OVER 1 LEVEL OF PARKING
2. PROPERTY LINE
3. SETBACK LINE
4. ENTRY RAMP TO BELOW GRADE PARKING
5. 2 STORY RECREATION BUILDING WITH TWO 3 STORY UNITS ABOVE
6. ADMIN. AT FIRST FLOOR
7. FIRE ACCESS ROAD
8. PUBLIC SERVICE UTILITY EASEMENT
9. LOADING AREA
10. EXISTING STRUCTURES
11. PROPOSED OFFSITE STREET
12. MONUMENT SIGNAGE
13. WASTE MANAGEMENT UTILITY VEHICLE TURNING TEMPLATE, TYP.
14. EAST PROPERTY LINE TREATMENT TO INCLUDE MASONRY WALL AND LANDSCAPE PLANTER, CONSISTENT WITH RESIDENTIAL PROPERTIES TO THE NORTH AND THE RECOMMENDED MITIGATION MEASURES OF THE NOISE REPORT
15. PARALLEL ON STREET PARKING, TYP.
16. MAILBOXES
17. SCREENED TRASH / RECYCLING ENCLOSURE INCORPORATING BUILDING MATERIALS AND COLORS THAT MATCH THE ARCHITECTURE OF THE BUILDING.
18. LANDSCAPE PLANTERS
19. LINE OF PODIUM BELOW
20. TOT LOT
21. NOT A PART, IMPROVED BY OTHERS

SETBACK MATRIX

	REQUIRED	PROVIDED
BUILDING A, TYP.		
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
REAR	[illegible]	[illegible]
BUILDING B		
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
REAR	[illegible]	[illegible]
REAR	[illegible]	[illegible]

SITE

2.69 ACRES
37.5 DU/AC

GROSS BUILDING AREA	150,848 SF
GROSS PARKING AREA	93,131 SF
IMPERVIOUS SURFACE	
BLDG.	37,545 SF (29.6%)
PAVING, PATIOS	58,256 SF (46.1%)
PERVIOUS SURFACE	
LANDSCAPING	30,832 SF (24.3%)

GLOBAL PREMIER DEVELOPMENT, INC.
5 Park Plaza, Suite 980
Irvine, California 92614
Tel: 949-222-9119 Fax: 949-722-9014

11/15/2006

PROJECT SUMMARY

UNIT	
PLAN 2 (2 BD, 2 BA- 930 SF) -	51
PLAN 3 (3 BD, 2 BA- 1065 SF) -	50
TOTAL-	101

PARKING

REQUIRED	
2 BD UNITS - 51 x 2	= 102
3 BD UNITS - 50 x 2	= 100
GUEST	= 31
TOTAL	= 233
PROVIDED	233

CONCEPTUAL SITE PLAN

Aspen Family Apartments

Milpitas, California

* For location of all existing public improvements, please see sheet A11, Existing Site Conditions

* For location of all trees, fencing, retaining walls, light standards, and existing trees, please refer to sheet L-1, Conceptual Landscape Plan

* This drawing is for conceptual planning purposes only. Refer to engineering plans for exact dimensions and locations (including ROWs, Easements, PL, etc)

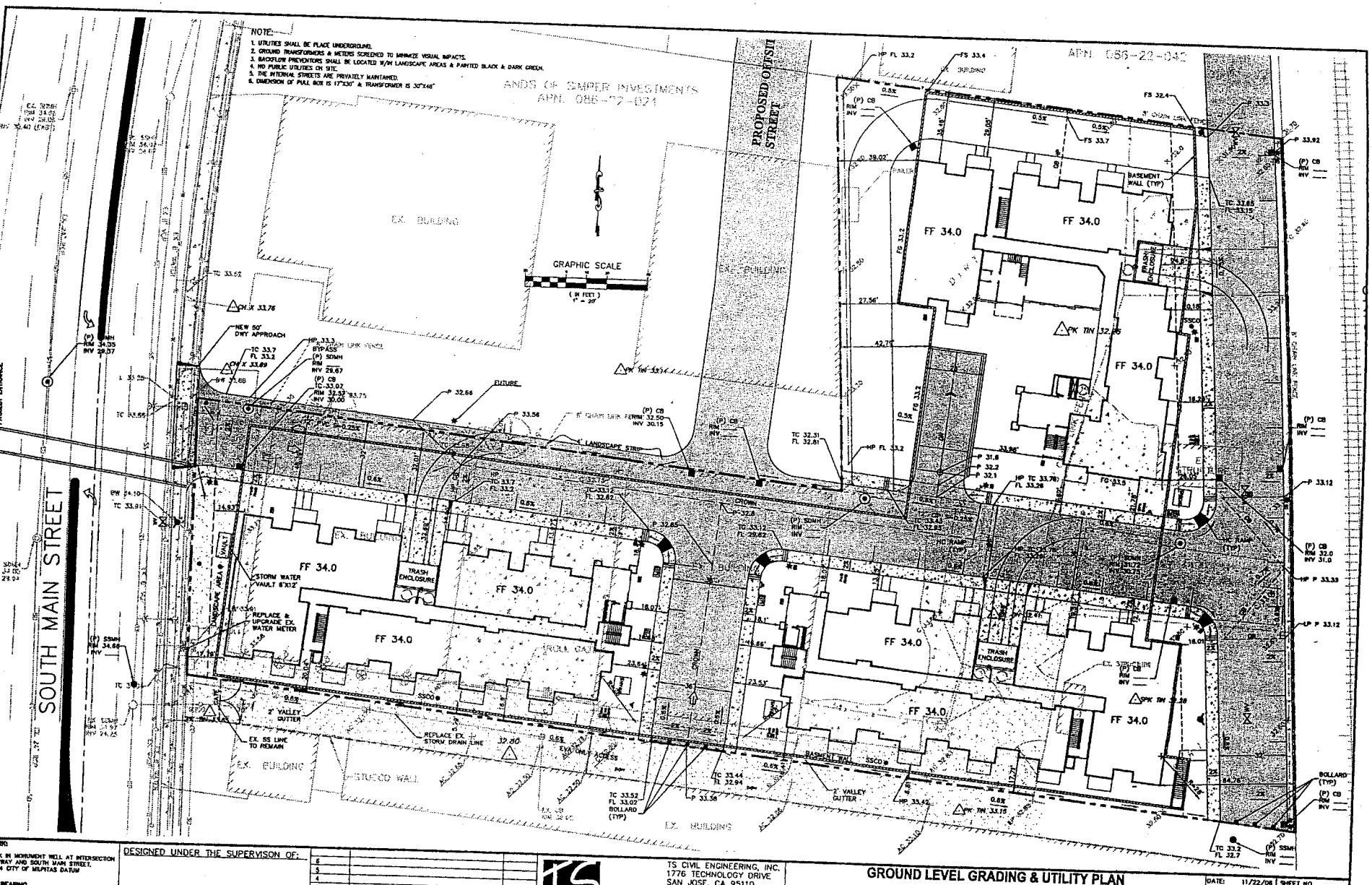
N

0 10 20 40

A1

KTGY GROUP, INC.
ARCHITECTURE PLANNING
17992 MITCHELL SOUTH
IRVINE, CALIFORNIA 92614

KTGY NO. 20050530



DESIGNED UNDER THE SUPERVISON OF:

TERENCE J. SZEWCZYK R.C.E. 35527
EXPIRES DATE: 09/30/07

BY	REVISIONS	DATE
6		
5		
4		
3		
2		
1		

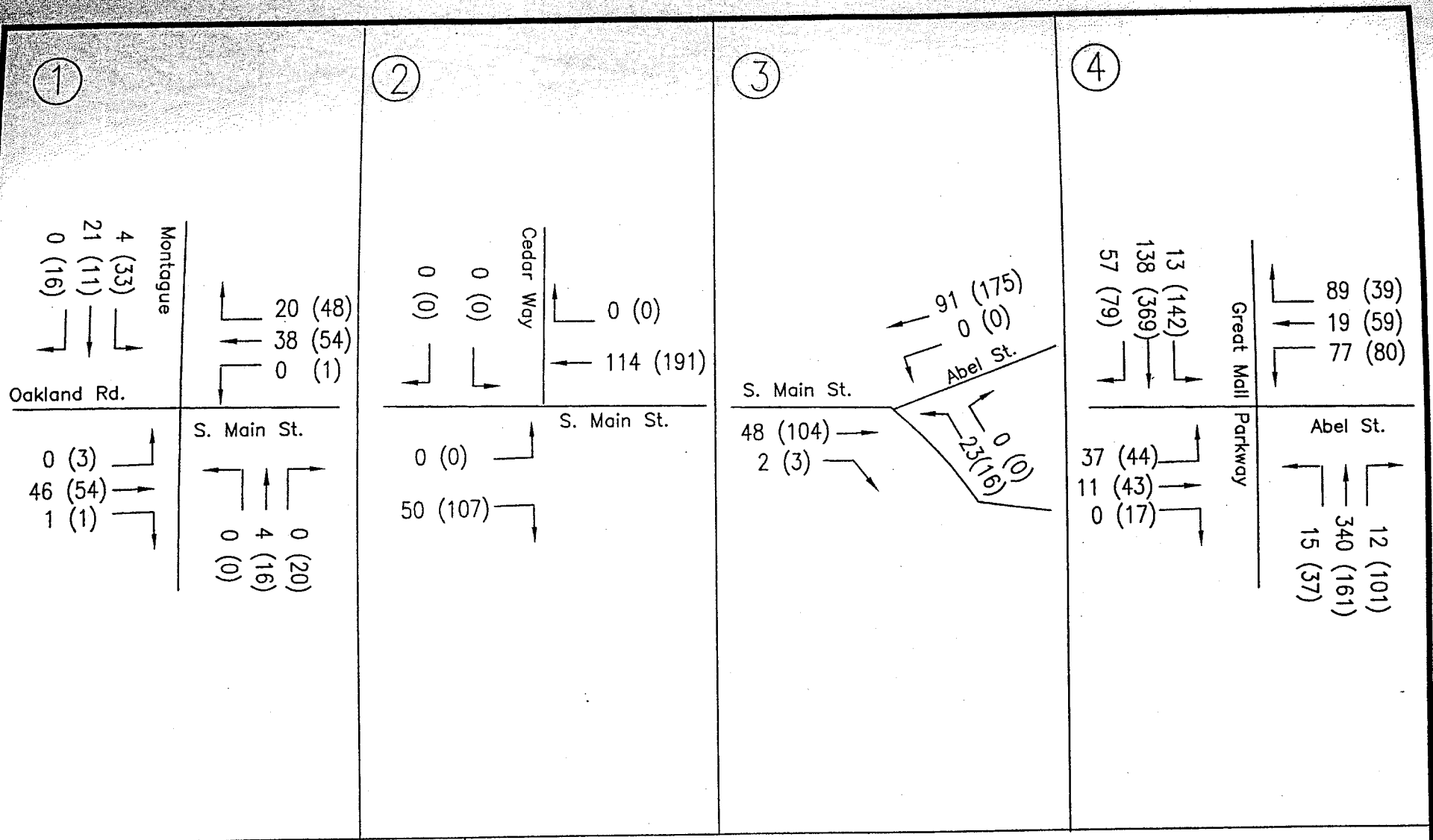
TS CIVIL ENGINEERING, INC.
1776 TECHNOLOGY DRIVE
SAN JOSE, CA 95110
CIVIL ENGINEERING
PH: 408.452.9300 TOLL FREE: 888.327.7070 FAX: 408.452.9301

GROUND LEVEL GRADING & UTILITY PLAN
LANDS OF BACCAGLIO
1666 S. MAIN STREET.
MILPITAS, CALIFORNIA

DATE:	11/22/06
SCALE:	AS SHOWN
DRAWN BY:	SK
SURVEYED BY:	SP
PROJ ENGR:	TJS
CHECK BY:	TJS

SHEET NO. C3 OF 5 SHEETS
JOB NO. 06-244

Approved Trips Inventory



APPROVED TRIPS INVENTORY

AM / (PM) PEAK HOUR

LEGEND

(1) Intersection Number

Ref.: Intersections #1 and #4 per City of Milpitas with interpolation for intersections #2 and #3

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#0605

Level of Service Descriptions

Level of Service Descriptions

(Signalized Intersections)

LOS	Average Control Delay (Seconds)	V/C Ratio	Description
A	≤ 10.0	< 0.600	Operations with very low delay occurring with favorable progression an /or short cycle lengths.
B+ B B-	10.1 - 12.0 12.1 - 18.0 18.1 - 20.0	0.600-0.699	Operations with low delay occurring with good progression and/or short cycle lengths.
C+ C C-	20.1 - 23.0 23.1 - 32.0 32.1 - 35.0	0.700-0.799	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.
D+ D D-	35.1 - 39.0 39.1 - 51.0 51.1 - 55.0	0.800-0.899	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.
E+ E E-	55.1 - 60.0 60.1 - 75.0 75.1 - 80.0	0.900-0.999	Operations with high delays values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.
F	> 80.0	≥ 1.00	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.

Notes:

LOS: Level of Service

V/C: Volume to Capacity Ratio

Reference: Highway Capacity Manual, Transportation Research Board, 2000

SCA

ENVIRONMENTAL, INC.

Environmental and Engineering Consultants

Revised January 8, 2007

Mr. Charles Hutchison
Global Premier Development, Inc.
5 Park Plaza, Suite 980
Irvine, CA 92614

RE: Soil & Groundwater Delineation
1666 S. Main Street, Milpitas, CA
SCA Project No: F8078rev

Dear Mr. Hutchison:

In July 2006, SCA conducted Soil and Groundwater sampling at the 1666 S. Main Street in Milpitas, California. The Target Property totals approximately 2.7 acres and is located in a moderately populated industrial and commercial neighborhood. The Target Property is occupied by 4 permanent/semi-permanent structures and three mobile storage sheds. There are various metal containers noted throughout the property. The property has been subdivided into units that are leased to various tenants. The usage of the property is light industrial, and there is an auto storage yard located on the northeast corner of the site.

This scope of work for the July 5 and 6, 2006 sampling was based upon findings of recognized environmental conditions during SCA's Phase I Environmental Site Assessment for the site, SCA Project No. F7765, dated May 2006. SCA performed the Phase 2 sampling to address the following issues identified during the Phase I. A complete record of the activities of the sampling event is described in SCA's report, *Soil and Groundwater Sampling* dated August 29, 2006 (SCA Project No. F7896).

Results and recommendations of the Phase 2 sampling include the following:

1. PCBs identified in the Star Landscaping area were generally above relevant ESLs and/or the California Human Health Screening Levels for Soil (CHHSLs) issued by the California Environmental Protection Agency (Cal-EPA). To determine the extent of PCB contamination at the Target Property in the Star Landscaping area around SB-1, SB-2, and SB-5, SCA recommended horizontal and vertical delineation of soils. Once delineated, the contaminated soils should be removed and disposed of per federal and state regulations. Delineation should be completed prior to commencement of construction/redevelopment activities.

2. Elevated levels of TPHd and TPHmo were identified at SB-1 (Star Landscaping) and SB-23 (Vacant Unpaved Area). These levels exceeded relevant ESLs at both locations. The groundwater samples in both areas showed levels of TPHd below applicable guidelines and no TPHmo was detected in the groundwater in either area. SCA recommended additional soil sampling in these areas to horizontally and vertically delineate the extent of soil contamination. Once delineated, the contaminated soils should be removed and disposed of per federal and state regulations.

3. Dibenzo(a,h)anthracene was detected in concentrations exceeding the ESL in SB-11 and SB-15. SCA recommended additional testing in these areas to vertically and horizontally delineate the extent of soil contamination.

4. As total chromium levels exceeded the relevant ESL, the results could have included concentrations of total chromium, trivalent chromium (III or Cr^{+3}) and the more hazardous hexavalent chromium (VI or Cr^{+6}). SCA forwarded samples for laboratory analysis for the more hazardous hexavalent chromium and all samples were below laboratory detection with the exception of SB-30 and SB-32. As all results with the exception of SB-30 and SB-32 were significantly below the chromium (III) ESL of 2500 mg/kg and no hexavalent chromium was detected in the samples, the chromium levels at the site in all areas except SB-30 and SB-32 were not considered an environmental or health threat. To evaluate the extent of total chromium and hexavalent chromium levels around SB-30 and SB-32, SCA recommended additional soil sampling in these areas to vertically and delineate the extent of possible contamination.

5. The mercury level at SB-2 warranted concern and SCA recommended further delineation in the vicinity of this boring. The level of 6.8 mg/kg at this boring was well above the other concentrations on site and indicated a potential release or source.

6. SCA recommended additional delineation in the locations of SB-5, SB-24, and SB-28 based on nickel concentrations. The concentrations, with particular emphasis on SB-24, were above the local background.

7. With respect to groundwater, several of the metals exceed the ESLs for drinking water; but as the site will not likely be a drinking water source, these levels may be considered acceptable with the exception of copper at GW-6. The concentration of 1500 ug/L far exceeded the background levels in the local vicinity and may be an indication of a localized source. SCA recommended delineation of this area for this metal.

To delineate the contamination in these areas, SCA performed additional soil and groundwater sampling. A description of our scope of work and results is included in this report.

Scope of Work

SCA contacted the Santa Clara Valley Water District (SCVWD) to obtain a drilling permit for collection of the groundwater samples and soil borings. SCA was informed by the SCVWD that based on the depths of the proposed borings, a drilling permit was not necessary for the project.

All work was completed on November 16 and 17, 2006 by SCA personnel Anya Tepermeyster and David Ellis under the supervision of Ms. Christina Codemo, CHMM, REA and Mr. Kenneth Conner, PE, CHMM. Additional confirmation samples were collected on January 4, 2007 by Mr. David Ellis. All personnel have current 40-hour OSHA HAZWOPER training.

A. Soil Sampling

SCA will contract with a driller to advance 48 borings at the Target Property. All soil samples were be collected at 2 feet and 5 feet below ground surface (bgs). The locations were selected based on the results of the Soil and Groundwater Sampling performed in July 2006.

Groundwater samples were collected from 3 of the borings.

Soil samples were collected at the locations with identified contamination, stepping out approximately 10 feet to the north, south, east and west with samples collected at 2' and 5' bgs. To delineate groundwater contamination in the area of GW6, groundwater samples were collected to the northeast, northwest and south of the boring and analyzed for copper. Due to a large amount of debris (e.g., abandoned cars, automotive parts, etc.) and stored materials in the granite counter area, some samples were moved to accommodate the driller's equipment. A complete list of sampling locations is provided in the attached Figure 1. A summary of all sampling locations and analysis is included in the following table:

Sample ID	Depth (feet)	PCBs (EPA 8082)	TPH (EPA 8015M)	SVOCs (EPA 8270)	Chromium & Chromium VI	Nickel	Mercury	Copper
SB-1-5	5	X	X					
SB-1N-2	2	X	X					
SB-1N-5	5	X	X					
SB-1S-2	2	X	X					
SB-1S-5	5	X	X					
SB-1W-2	2	X	X					
SB-1W-5	5	X	X					
SB-1E-2	2	X	X					
SB-1E-5	5	X	X					
SB-2-5	5	X					X	
SB-2N-2	2	X					X	
SB-2N-5	5	X					X	
SB-2S-2	2	X					X	
SB-2S-5	5	X					X	
SB-2W-2	2	X					X	
SB-2W-5	5	X					X	
SB-2E-2	2	X					X	
SB-2E-5	5	X					X	
SB-5-5	5	X						
SB-5N-2	2	X						
SB-5N-5	5	X						
SB-5S-2	2	X						
SB-5S-5	5	X						
SB-5W-2	2	X						
SB-5W-5	5	X						
SB-5E-2	2	X						
SB-5E-5	5	X						
SB-23-5	5		X					
SB-23N-2	2		X					
SB-23N-5	5		X					
SB-23S-2	2		X					
SB-23S-5	5		X					
SB-23W-2	2		X					
SB-23W-5	5		X					
SB-23E-2	2		X					
SB-23E-5	5		X					
SB-11-5	5			X				
SB-11N-2	2			X				
SB-11N-5	5			X				
SB-11S-2	2			X				
SB-11S-5	5			X				
SB-11W-2	2			X				
SB-11W-5	5			X				
SB-11E-2	2			X				
SB-11E-5	5			X				

Sample ID	Depth (feet)	PCBs (EPA 8082)	TPH (EPA 8015M)	SVOCs (EPA 8270)	Chromium & Chromium VI	Nickel	Mercury	Copper
SB-15-5	5			X				
SB-15N-2	2			X				
SB-15N-5	5			X				
SB-15S-2	2			X				
SB-15S-5	5			X				
SB-15W-2	2			X				
SB-15W-5	5			X				
SB-15E-2	2			X				
SB-15E-5	5			X				
SB-30-5	5				X			
SB-30N-2	2				X			
SB-30N-5	5				X			
SB-30S-2	2				X			
SB-30S-5	5				X			
SB-30W-2	2				X			
SB-30W-5	5				X			
SB-30E-2	2				X			
SB-30E-5	5				X			
SB-32-5	5				X			
SB-32N-2	2				X			
SB-32N-5	5				X			
SB-32S-2	2				X			
SB-32S-5	5				X			
SB-32W-2	2				X			
SB-32W-5	5				X			
SB-32E-2	2				X			
SB-32E-5	5				X			
SB-24-5	5					X		
SB-24N-2	2					X		
SB-24N-5	5					X		
SB-24S-2	2					X		
SB-24S-5	5					X		
SB-24W-2	2					X		
SB-24W-5	5					X		
SB-24E-2	2					X		
SB-24E-5	5					X		
GW-6NW	15							X
GW-6NE	15							X
GW-6S	15							X
Totals:		27	18	18	18	9	9	3

The samples were submitted to McCampbell Analytical in Pacheco, California for analysis. All borings were backfilled with soil and the area was patched with a grout mixture.

Results & Conclusions

The following sections summarize results of sampling activities at the Target Property and provide conclusions and recommendations for each sampled area. A summary of analytical data is included in Attachment 2, and laboratory reports are included in Attachment 3.

PCB-Contaminated Soils in Star Landscaping Area (SB-1, SB-2, & SB-5)

PCBs identified in the July 2006 sampling in the Star Landscaping area were generally above relevant Environmental Screening Levels (ESLs) put forth by the Regional Water Quality Control Board (RWQCB) and/or the California Human Health Screening Levels for Soil (CHHSLs) issued by the California Environmental Protection Agency (Cal-EPA). To determine the extent of PCB contamination at the Target Property in the Star Landscaping area around SB-1, SB-2, and SB-5, SCA provided horizontal and vertical delineation of soils by stepping out approximately 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A west stepout sample was not collected at SB-5 as the original boring was located at the property fenceline. A 5-foot sample was also collected in the original boring location. Results indicated no measurable levels of PCBs in any of the samples. Based on the original soil sampling results and the delineation results, SCA recommends that the soils within this area be excavated down to a depth of 5 feet bgs and disposed of at an appropriate landfill as PCB-impacted soil.

TPHd and TPHmo-contaminated Areas (SB-1 & SB-23):

The July 2006 sampling identified elevated levels of TPHd and TPHmo at SB-1 (Star Landscaping) and SB-23 (Vacant Unpaved Area). These levels exceeded relevant ESLs and CHHSLs at both locations. The groundwater samples in both areas showed levels of TPHd below applicable guidelines and no TPHmo was detected in the groundwater in either area. SCA recommended additional soil sampling in these areas to horizontally and vertically delineate the extent of soil contamination.

SCA provided horizontal and vertical delineation of soils by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Results for the SB-1 location showed TPHd concentrations ranging from less than laboratory detection to 1.5 milligrams per kilogram (mg/kg), and TPHmo from less than laboratory detection to 14 mg/kg. For the SB-23 location, TPHd was detected at concentrations ranging from less than laboratory detection to 1.3 mg/kg. TPHmo was detected at this location at less than laboratory detection to 9.1 mg/kg. Although low levels of total petroleum hydrocarbons in the diesel and motor oil ranges were detected at various step-out locations and depths, the levels are below relevant ESLs. Based on these findings, the contamination has been delineated at both locations. SCA recommends that the soil in these areas be excavated within the boundaries of the delineation and disposed of at an appropriate landfill.

Dibenzo(a,h)anthracene -contaminated Areas (SB-11 & SB-15):

Dibenzo(a,h)anthracene was detected in concentrations exceeding the ESL in SB-11 and SB-15 during the July 2006 sampling event. To delineate contamination in these areas, SCA performed horizontal and vertical delineation sampling and collected samples for analysis of dibenzo(a,h)anthracene. Generally, delineation was performed by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Due to the large amount of abandoned autos, automobile parts, and general debris in the area surrounding SB-11, samples SB-11E and SB-11W were located approximately 15 feet from the original boring.

No dibenzo(a,h)anthracene was detected in any of the delineation samples. SCA recommends contaminated soils within the boundaries of the delineation sampling be excavated and disposed of at an appropriate landfill prior to redevelopment of the site.

Metals-contaminated Areas (SB-2, SB-24, SB-30, & SB-32):

Soils sampled during the July 2006 event were analyzed for Title 26 metals (CAM 17). Most of the metals detected in the soil were below relevant ESLs and CHHSLs with the exception of the following:

- Molybdenum at SB-30 and SB-32
- Zinc at SB-29 and SB-32
- Arsenic at all soil locations
- Cobalt at most soil locations
- Total Chromium at most soil locations
- Mercury at SB-2
- Nickel at SB-5, SB-24, SB-28

Upon field review, SCA determined that the elevated zinc at SB29 and SB-32 were most likely due to surface soil contamination from metals associated with fencing located near the borings. Molybdenum was also detected at two locations that exceeded the RWQCB ESLs; however, the results were well below the CHHSLs. Based on these observations, SCA does not recommend additional sampling in these areas.

Although the arsenic and cobalt levels exceeded applicable ESLs and (in the case of arsenic) CHHSLs, the levels appeared consistent with background levels reported for the area and are not necessarily indicative of soil contamination at the site.

Although total chromium levels exceeded the ESLs and CHHSLs, the results could have included concentrations of total chromium, trivalent chromium (III or Cr^{+3}) and the more hazardous hexavalent chromium (VI or Cr^{+6}). SCA forwarded samples for laboratory analysis for the more hazardous hexavalent chromium and all samples were below laboratory detection with the exception of SB-30 and SB-32. As all results with the exception of SB-30 and SB-32 were significantly below the chromium (III) ESL of 2500 mg/kg and no hexavalent chromium was detected in the samples (other tna SB-30 and SB-32), the chromium levels at the site in these areas were not considered an environmental or health threat. To evaluate the extent of total chromium and hexavalent chromium levels around SB-30 and SB-32, SCA performed additional soil sampling in these areas to vertically and delineate the extent of possible contamination. Generally, delineation was performed by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Due to the large amount of granite countertops and tiles debris in the area surrounding SB-30, samples SB-30N, SB-30E and SB-11W were located approximately 20 feet from the original boring. SB-32W was also moved to the south along the fence within the driveway to provide access for sampling equipment. Total chromium levels were found to be consistent with background levels at the site, and no hexavalent chromium was detected in any sample. To remediate chromium-impacted soils identified in the July 2006 sampling, SCA recommends that soils within the delineated area be excavated and disposed of at an appropriate landfill.

The mercury level of 6.8 mg/kg at SB-2 measured during the July 2006 sampling event warranted concern as the concentration was well above the other concentrations on site and indicated a potential release or source. SCA recommended further delineation in the vicinity of this boring to identify the extent of contamination. SCA collected samples around the boring stepping out approximately 10 feet to each direction. Mercury levels were found to range between 0.063 mg/kg at SB-2N (2') and SB-2E (5') to 0.12 mg/kg at SB-2E (2'), and all measured levels were below the ESL and CHHSL. To

remediate mercury-impacted soils, SCA recommends that soils within the delineated area be excavated and disposed of at an appropriate landfill.

Finally, nickel was found at elevated levels around SB-5, SB-28, and SB-24. Upon review, the levels identified at SB-5 and SB-28 were above the ESL but below the CHHSL, and were not found to be well above background concentrations at the site. SCA recommended no further sampling in these areas. Delineation sampling was performed around SB-24 to determine the vertical and horizontal extent of the contamination. Sample results ranged from 71 mg/kg SB-24E (2') to 99 mg/kg SB24-W (2'), and all measured results were below the CHHSL. SCA recommends removal of the nickel-impacted soils within the delineated area prior to redevelopment of the site.

Copper-impacted Groundwater (GW-6):

During the July 2006 sampling, results of the CAM 17 analysis indicated various concentrations of metals that exceeded the ESLs for drinking water; however, as the site will not likely be a drinking water source, SCA considered these levels acceptable for the use of the property with the exception of copper at GW-6. The concentration of 1500 ug/L far exceeded the background levels in the local vicinity and was an indication of a possible localized source. SCA recommended delineation of this area for this metal.

SCA collected three additional groundwater samples to determine the extent of the contamination. Due to debris and stored granite in the tenant area, sample GW-6S was moved farther south than the originally proposed 10 feet to accommodate drilling equipment. A map of the locations is included in Attachment 1. Samples were analyzed for total copper, and results ranged from 1100 ug/L at GW-6S to 2400 ug/L at GW6-NE. These results are above background levels at the site and indicate a possible groundwater contamination source at the granite countertop area.

A summary of all analytical data and relevant regulatory screening levels is included in Attachment 2.

If you have any questions, please call us at the numbers below.

Sincerely,
SCA ENVIRONMENTAL, INC.

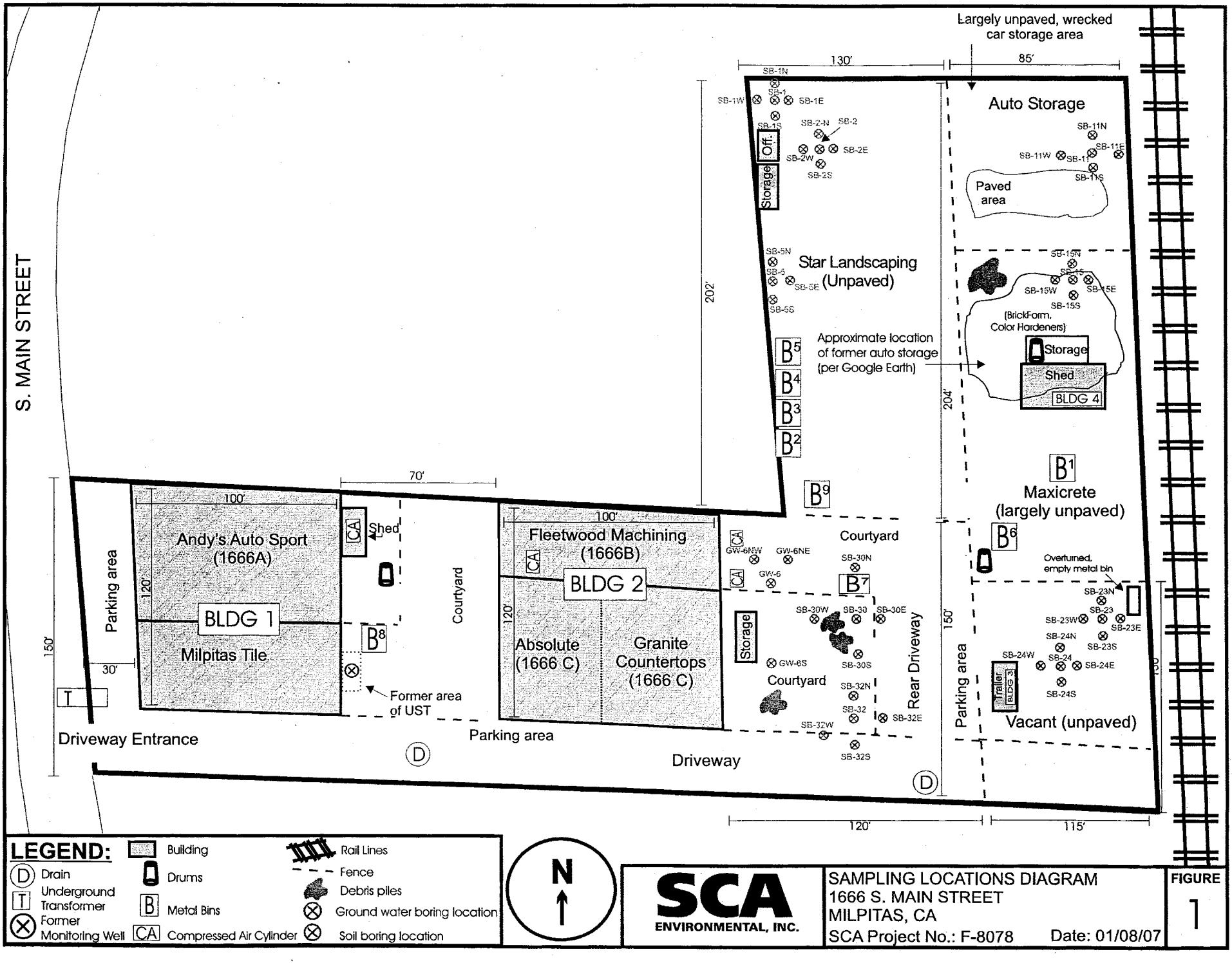
Christina Codemo, CHMM, REA
Sr. Project Manager
(415) 703-8490 x414

Kenneth Conner, PE, CHMM
Project Consultant
(510) 645-6236 x412

Attachment 1: Sample Location Diagram
Attachment 2: Results Summary Tables
Attachment 3: Laboratory Results

Attachment 1

Sample Location Diagram



LEGEND:

- D — Drain
- T — Underground Transformer
- ⊗ — Former Monitoring Well
- Building
- Drums
- B — Metal Bins
- CA — Compressed Air Cylinder
- Rail Lines
- Fence
- Debris piles
- ⊗ — Ground water boring location
- ⊗ — Soil boring location

N

SCA ENVIRONMENTAL, INC.

SAMPLING LOCATIONS DIAGRAM
1666 S. MAIN STREET
MILPITAS, CA
SCA Project No.: F-8078 Date: 01/08/07

FIGURE 1

Attachment 2

Results Summary

SCA

ENVIRONMENTAL, INC.

Environmental and Engineering Consultants

Revised January 8, 2007

Mr. Charles Hutchison
Global Premier Development, Inc.
5 Park Plaza, Suite 980
Irvine, CA 92614

RE: Soil & Groundwater Delineation
1666 S. Main Street, Milpitas, CA
SCA Project No: F8078rev

Dear Mr. Hutchison:

In July 2006, SCA conducted Soil and Groundwater sampling at the 1666 S. Main Street in Milpitas, California. The Target Property totals approximately 2.7 acres and is located in a moderately populated industrial and commercial neighborhood. The Target Property is occupied by 4 permanent/semi-permanent structures and three mobile storage sheds. There are various metal containers noted throughout the property. The property has been subdivided into units that are leased to various tenants. The usage of the property is light industrial, and there is an auto storage yard located on the northeast corner of the site.

This scope of work for the July 5 and 6, 2006 sampling was based upon findings of recognized environmental conditions during SCA's Phase I Environmental Site Assessment for the site, SCA Project No. F7765, dated May 2006. SCA performed the Phase 2 sampling to address the following issues identified during the Phase I. A complete record of the activities of the sampling event is described in SCA's report, *Soil and Groundwater Sampling* dated August 29, 2006 (SCA Project No. F7896).

Results and recommendations of the Phase 2 sampling include the following:

1. PCBs identified in the Star Landscaping area were generally above relevant ESLs and/or the California Human Health Screening Levels for Soil (CHHSLs) issued by the California Environmental Protection Agency (Cal-EPA). To determine the extent of PCB contamination at the Target Property in the Star Landscaping area around SB-1, SB-2, and SB-5, SCA recommended horizontal and vertical delineation of soils. Once delineated, the contaminated soils should be removed and disposed of per federal and state regulations. Delineation should be completed prior to commencement of construction/redevelopment activities.

2. Elevated levels of TPHd and TPHmo were identified at SB-1 (Star Landscaping) and SB-23 (Vacant Unpaved Area). These levels exceeded relevant ESLs at both locations. The groundwater samples in both areas showed levels of TPHd below applicable guidelines and no TPHmo was detected in the groundwater in either area. SCA recommended additional soil sampling in these areas to horizontally and vertically delineate the extent of soil contamination. Once delineated, the contaminated soils should be removed and disposed of per federal and state regulations.

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5. The mercury level at SB-2 warranted concern and SCA recommended further delineation in the vicinity of this boring. The level of 6.8 mg/kg at this boring was well above the other concentrations on site and indicated a potential release or source.

6. SCA recommended additional delineation in the locations of SB-5, SB-24, and SB-28 based on nickel concentrations. The concentrations, with particular emphasis on SB-24, were above the local background.

7. With respect to groundwater, several of the metals exceed the ESLs for drinking water; but as the site will not likely be a drinking water source, these levels may be considered acceptable with the exception of copper at GW-6. The concentration of 1500 ug/L far exceeded the background levels in the local vicinity and may be an indication of a localized source. SCA recommended delineation of this area for this metal.

To delineate the contamination in these areas, SCA performed additional soil and groundwater sampling. A description of our scope of work and results is included in this report.

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Groundwater samples were collected from 3 of the borings.

Soil samples were collected at the locations with identified contamination, stepping out approximately 10 feet to the north, south, east and west with samples collected at 2' and 5' bgs. To delineate groundwater contamination in the area of GW6, groundwater samples were collected to the northeast, northwest and south of the boring and analyzed for copper. Due to a large amount of debris (e.g., abandoned cars, automotive parts, etc.) and stored materials in the granite counter area, some samples were moved to accommodate the driller's equipment. A complete list of sampling locations is provided in the attached Figure 1. A summary of all sampling locations and analysis is included in the following table:

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SB-1S-2	2	X	X					
SB-1S-5	5	X	X					
SB-1W-2	2	X	X					
SB-1W-5	5	X	X					
SB-1E-2	2	X	X					
SB-1E-5	5	X	X					
SB-2-5	5	X					X	
SB-2N-2	2	X					X	
SB-2N-5	5	X					X	
SB-2S-2	2	X					X	
SB-2S-5	5	X					X	
SB-2W-2	2	X					X	
SB-2W-5	5	X					X	
SB-2E-2	2	X					X	
SB-2E-5	5	X					X	
SB-5-5	5	X						
SB-5N-2	2	X						
SB-5N-5	5	X						
SB-5S-2	2	X						
SB-5S-5	5	X						
SB-5W-2	2	X						
SB-5W-5	5	X						
SB-5E-2	2	X						
SB-5E-5	5	X						
SB-23-5	5		X					
SB-23N-2	2		X					
SB-23N-5	5		X					
SB-23S-2	2		X					
SB-23S-5	5		X					
SB-23W-2	2		X					
SB-23W-5	5		X					
SB-23E-2	2		X					
SB-23E-5	5		X					
SB-11-5	5			X				
SB-11N-2	2			X				
SB-11N-5	5			X				
SB-11S-2	2			X				
SB-11S-5	5			X				
SB-11W-2	2			X				
SB-11W-5	5			X				
SB-11E-2	2			X				
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SB-15N-2	2			X				
SB-15N-5	5			X				
SB-15S-2	2			X				
SB-15S-5	5			X				
SB-15W-2	2			X				
SB-15W-5	5			X				
SB-15E-2	2			X				
SB-15E-5	5			X				
SB-30-5	5				X			
SB-30N-2	2				X			
SB-30N-5	5				X			
SB-30S-2	2				X			
SB-30S-5	5				X			
SB-30W-2	2				X			
SB-30W-5	5				X			
SB-30E-2	2				X			
SB-30E-5	5				X			
SB-32-5	5				X			
SB-32N-2	2				X			
SB-32N-5	5				X			
SB-32S-2	2				X			
SB-32S-5	5				X			
SB-32W-2	2				X			
SB-32W-5	5				X			
SB-32E-2	2				X			
SB-32E-5	5				X			
SB-24-5	5					X		
SB-24N-2	2					X		
SB-24N-5	5					X		
SB-24S-2	2					X		
SB-24S-5	5					X		
SB-24W-2	2					X		
SB-24W-5	5					X		
SB-24E-2	2					X		
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The following sections summarize results of sampling activities at the Target Property and provide conclusions and recommendations for each sampled area. A summary of analytical data is included in Attachment 2, and laboratory reports are included in Attachment 3.

PCB-Contaminated Soils in Star Landscaping Area (SB-1, SB-2, & SB-5)

PCBs identified in the July 2006 sampling in the Star Landscaping area were generally above relevant Environmental Screening Levels (ESLs) put forth by the Regional Water Quality Control Board (RWQCB) and/or the California Human Health Screening Levels for Soil (CHHSLs) issued by the California Environmental Protection Agency (Cal-EPA). To determine the extent of PCB contamination at the Target Property in the Star Landscaping area around SB-1, SB-2, and SB-5, SCA provided horizontal and vertical delineation of soils by stepping out approximately 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A west stepout sample was not collected at SB-5 as the original boring was located at the property fenceline. A 5-foot sample was also collected in the original boring location. Results indicated no measurable levels of PCBs in any of the samples. Based on the original soil sampling results and the delineation results, SCA recommends that the soils within this area be excavated down to a depth of 5 feet bgs and disposed of at an appropriate landfill as PCB-impacted soil.

TPHd and TPHmo-contaminated Areas (SB-1 & SB-23):

The July 2006 sampling identified elevated levels of TPHd and TPHmo at SB-1 (Star Landscaping) and SB-23 (Vacant Unpaved Area). These levels exceeded relevant ESLs and CHHSLs at both locations. The groundwater samples in both areas showed levels of TPHd below applicable guidelines and no TPHmo was detected in the groundwater in either area. SCA recommended additional soil sampling in these areas to horizontally and vertically delineate the extent of soil contamination.

SCA provided horizontal and vertical delineation of soils by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Results for the SB-1 location showed TPHd concentrations ranging from less than laboratory detection to 1.5 milligrams per kilogram (mg/kg), and TPHmo from less than laboratory detection to 14 mg/kg. For the SB-23 location, TPHd was detected at concentrations ranging from less than laboratory detection to 1.3 mg/kg. TPHmo was detected at this location at less than laboratory detection to 9.1 mg/kg. Although low levels of total petroleum hydrocarbons in the diesel and motor oil ranges were detected at various step-out locations and depths, the levels are below relevant ESLs. Based on these findings, the contamination has been delineated at both locations. SCA recommends that the soil in these areas be excavated within the boundaries of the delineation and disposed of at an appropriate landfill.

Dibenzo(a,h)anthracene -contaminated Areas (SB-11 & SB-15):

Dibenzo(a,h)anthracene was detected in concentrations exceeding the ESL in SB-11 and SB-15 during the July 2006 sampling event. To delineate contamination in these areas, SCA performed horizontal and vertical delineation sampling and collected samples for analysis of dibenzo(a,h)anthracene. Generally, delineation was performed by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Due to the large amount of abandoned autos, automobile parts, and general debris in the area surrounding SB-11, samples SB-11E and SB-11W were located approximately 15 feet from the original boring.

No dibenzo(a,h)anthracene was detected in any of the delineation samples. SCA recommends contaminated soils within the boundaries of the delineation sampling be excavated and disposed of at an appropriate landfill prior to redevelopment of the site.

Metals-contaminated Areas (SB-2, SB-24, SB-30, & SB-32):

Soils sampled during the July 2006 event were analyzed for Title 26 metals (CAM 17). Most of the metals detected in the soil were below relevant ESLs and CHHSLs with the exception of the following:

- Molybdenum at SB-30 and SB-32
- Zinc at SB-29 and SB-32
- Arsenic at all soil locations
- Cobalt at most soil locations
- Total Chromium at most soil locations
- Mercury at SB-2
- Nickel at SB-5, SB-24, SB-28

Upon field review, SCA determined that the elevated zinc at SB29 and SB-32 were most likely due to surface soil contamination from metals associated with fencing located near the borings. Molybdenum was also detected at two locations that exceeded the RWQCB ESLs; however, the results were well below the CHHSLs. Based on these observations, SCA does not recommend additional sampling in these areas.

Although the arsenic and cobalt levels exceeded applicable ESLs and (in the case of arsenic) CHHSLs, the levels appeared consistent with background levels reported for the area and are not necessarily indicative of soil contamination at the site.

Although total chromium levels exceeded the ESLs and CHHSLs, the results could have included concentrations of total chromium, trivalent chromium (III or Cr^{+3}) and the more hazardous hexavalent chromium (VI or Cr^{+6}). SCA forwarded samples for laboratory analysis for the more hazardous hexavalent chromium and all samples were below laboratory detection with the exception of SB-30 and SB-32. As all results with the exception of SB-30 and SB-32 were significantly below the chromium (III) ESL of 2500 mg/kg and no hexavalent chromium was detected in the samples (other tna SB-30 and SB-32), the chromium levels at the site in these areas were not considered an environmental or health threat. To evaluate the extent of total chromium and hexavalent chromium levels around SB-30 and SB-32, SCA performed additional soil sampling in these areas to vertically and delineate the extent of possible contamination. Generally, delineation was performed by stepping out 10 feet to the north, south, east and west from the original boring locations and collecting samples at a depth of 2 feet and 5 feet bgs. A 5-foot sample was also collected in the original boring locations. Due to the large amount of granite countertops and tiles debris in the area surrounding SB-30, samples SB-30N, SB-30E and SB-11W were located approximately 20 feet from the original boring. SB-32W was also moved to the south along the fence within the driveway to provide access for sampling equipment. Total chromium levels were found to be consistent with background levels at the site, and no hexavalent chromium was detected in any sample. To remediate chromium-impacted soils identified in the July 2006 sampling, SCA recommends that soils within the delineated area be excavated and disposed of at an appropriate landfill.

The mercury level of 6.8 mg/kg at SB-2 measured during the July 2006 sampling event warranted concern as the concentration was well above the other concentrations on site and indicated a potential release or source. SCA recommended further delineation in the vicinity of this boring to identify the extent of contamination. SCA collected samples around the boring stepping out approximately 10 feet to each direction. Mercury levels were found to range between 0.063 mg/kg at SB-2N (2') and SB-2E (5') to 0.12 mg/kg at SB-2E (2'), and all measured levels were below the ESL and CHHSL. To

remediate mercury-impacted soils, SCA recommends that soils within the delineated area be excavated and disposed of at an appropriate landfill.

Finally, nickel was found at elevated levels around SB-5, SB-28, and SB-24. Upon review, the levels identified at SB-5 and SB-28 were above the ESL but below the CHHSL, and were not found to be well above background concentrations at the site. SCA recommended no further sampling in these areas. Delineation sampling was performed around SB-24 to determine the vertical and horizontal extent of the contamination. Sample results ranged from 71 mg/kg SB-24E (2') to 99 mg/kg SB24-W (2'), and all measured results were below the CHHSL. SCA recommends removal of the nickel-impacted soils within the delineated area prior to redevelopment of the site.

Copper-impacted Groundwater (GW-6):

During the July 2006 sampling, results of the CAM 17 analysis indicated various concentrations of metals that exceeded the ESLs for drinking water; however, as the site will not likely be a drinking water source, SCA considered these levels acceptable for the use of the property with the exception of copper at GW-6. The concentration of 1500 ug/L far exceeded the background levels in the local vicinity and was an indication of a possible localized source. SCA recommended delineation of this area for this metal.

SCA collected three additional groundwater samples to determine the extent of the contamination. Due to debris and stored granite in the tenant area, sample GW-6S was moved farther south than the originally proposed 10 feet to accommodate drilling equipment. A map of the locations is included in Attachment 1. Samples were analyzed for total copper, and results ranged from 1100 ug/L at GW-6S to 2400 ug/L at GW6-NE. These results are above background levels at the site and indicate a possible groundwater contamination source at the granite countertop area.

A summary of all analytical data and relevant regulatory screening levels is included in Attachment 2.

If you have any questions, please call us at the numbers below.

Sincerely,
SCA ENVIRONMENTAL, INC.

Christina Codemo, CHMM, REA
Sr. Project Manager
(415) 703-8490 x414

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Project Consultant
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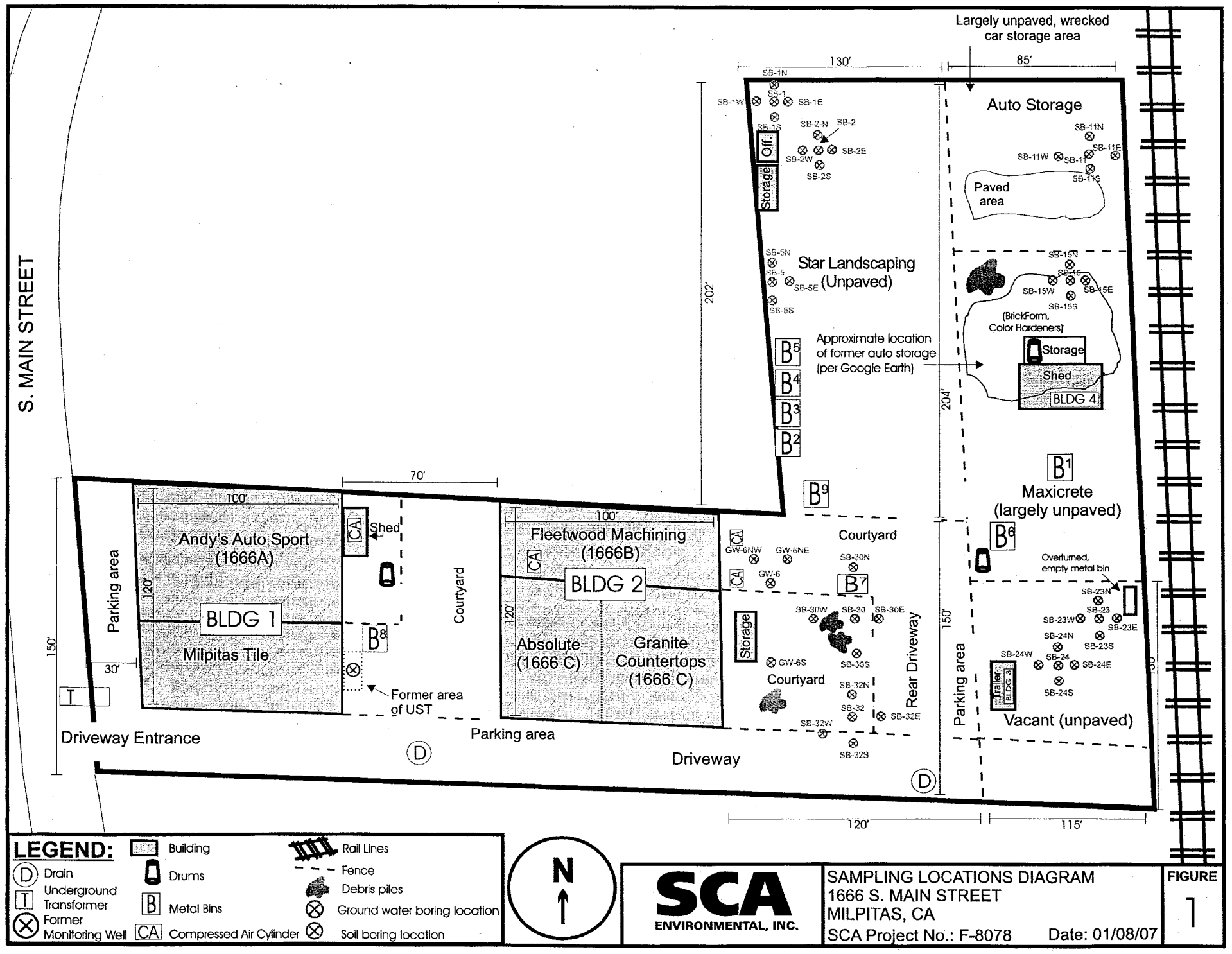
Attachment 1: Sample Location Diagram
Attachment 2: Results Summary Tables
Attachment 3: Laboratory Results

Attachment 1

Sample Location Diagram



LEGEND:

- D — Drain
- T — Underground Transformer
- ⊗ — Former Monitoring Well
- Building
- Drums
- B — Metal Bins
- CA — Compressed Air Cylinder
- Rail Lines
- Fence
- Debris piles
- ⊗ — Ground water boring location
- ⊗ — Soil boring location

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SCA ENVIRONMENTAL, INC.

SAMPLING LOCATIONS DIAGRAM
1666 S. MAIN STREET
MILPITAS, CA
SCA Project No.: F-8078 Date: 01/08/07

FIGURE 1

Attachment 2

Results Summary

1666 S. MAIN ST., MILPITAS, CA
SOIL DELINEATION SAMPLE RESULTS

Sample ID s

Constituent	SB-1	SB-1N	SB-1N	SB-1S	SB-1S	SB-1W	SB-1W	SB-1E	SB-1E	SB-2	SB-2N	SB-2N	SB-2S	SB-2S	SB-2W	SB-2W	SB-2E	SB-2E	SB-5	SB-5N	SB-5N	SB-5S	SB-5S	SB-5E
Depth (feet)	6	2	6	2	6	2	6	2	5	5	2	5	2	5	2	5	2	6	6	2	5	2	5	2
Hydrocarbons																								
TPH (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TPH(d)	ND	ND	ND	1.5	ND	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TPH(mo)	5.4	ND	ND	14	ND	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SVOCs (note: No SVOCs detected in the samples)																								
All SVOCs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polychlorinated biphenyls (PCBs)																								
All Aroclors	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Metals																								
Chromium (total)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hexavalent Chromium	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mercury	—	—	—	—	—	—	—	—	—	0.11	0.080	0.063	0.078	0.069	0.080	0.086	0.12	0.083	—	—	—	—	—	—
Nickel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Constituent	SB-5E	SB-11	SB-11N	SB-11N	SB-11S	SB-11S	SB-11W	SB-11W	SB-11E	SB-11E	SB-15	SB-15N	SB-15N	SB-15S	SB-15S	SB-15W	SB-15W	SB-15E	SB-15E	SB-23	SB-23N	SB-23N	SB-23S	SB-23S
Depth (feet)	5	5	2	5	2	5	2	5	2	6	5	2	5	2	5	2	5	2	5	5	2	5	2	5
Hydrocarbons																								
TPH (g)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND	ND	ND	ND	ND
TPH(d)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND	ND	1.3	ND	ND
TPH(mo)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	ND	ND	9.1	ND	ND
SVOCs (note: No SVOCs detected in the samples)																								
All SVOCs	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	—	—	—
Polychlorinated biphenyls (PCBs)																								
All Aroclors	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Metals																								
Chromium (total)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hexavalent Chromium	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mercury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nickel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: All ESLs are February 2005 levels set forth by the Regional Water Quality Control Board for Shallow Soil Screening Levels (<3m) for Residential Land Use where groundwater is NOT a drinking water source.

Note: CHHSLs are California Human health Screening Levels for Soil issued January 2005 by the California Environmental Protection Agency (Cal/EPA) and are not dependent on depth of soil.

Note:
All Soil Results reported in mg/kg.

1666 S. MAIN ST., MILPITAS, CA
SOIL DELINEATION SAMPLE RESULTS

Constituent	SB-23W	SB-23W	SB-23E	SB-23E	SB-24	SB-24N	SB-24N	SB-24S	SB-24S	SB-24W	SB-24W	SB-24E	SB-24E	SB-30	SB-30N	SB-30N	SB-30S	SB-30S	SB-30W	SB-30W	SB-30E	SB-30E	SB-32	SB-32N	SB-32N	SB-32S	SB-32S	SB-32W	SB-32W	SB-32E	SB-32E	ESLs Residential: Shallow Soil (<3m)	CHHSLs Residential Land
Depth (feet)	2	6	2	6	5	2	5	2	6	2	5	2	5	5	2	5	2	5	2	5	2	5	2	6	2	5	2	5	2	5	6		
Hydrocarbons																																	
TPH (g)	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	—
TPH(d)	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	100	—
TPH(mo)	ND	5.1	5.4	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	500	—
SVOCs (note: No SVOC																																	
All SVOCs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Polychlorinated biphen																																	
All Aroclors	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.089
Metals																																	
Chromium (total)	—	—	—	—	—	—	—	—	—	—	—	—	—	62	150	58	55	60	54	54	58	52	51	53	57	54	56	50	57	60	56	58	—
Hexavalent Chromium	—	—	—	—	—	—	—	—	—	—	—	—	—	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	30
Mercury	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.7	18
Nickel	—	—	—	—	90	88	94	82	84	99	91	71	83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	150	1600
Note: All ESLs are Febru																																	
Note: CHHSLs are Califor																																	

Note:
All Soil Results reported in mg/kg.

1666 S. MAIN ST., MILPITAS, CA
GROUNDWATER DELINEATION RESULTS

	Sample ID			ESLs	MCLs	
Constituent	**GW-6NW**	**GW-6NE**	**GW-6S**	**Groundwater**	**USEPA**	**CDHS**
Depth	45	44	45			
Metals						
Copper	**1400**	**2400**	1100	1300	1300	1300
ESLs are February 2005 RWQCB levels where groundwater is NOT a drinking water source. MCLs reported are						
USEPA and State Levels.						

Note:
Results in Bold exceed ESLs.
All Results reported in ug/L.

SCA Environmental, Inc.
Project No.: F8078
Revised January 8, 2007

1666 S. MAIN ST., MILPITAS, CA
SOIL SAMPLE RESULTS

Constituent	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-31	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37	SB-38	SB-39	ESLs Residential: Shallow Soil (<3m)	CHHSLs Residential Land
Sample ID s																																									
Depth (feet)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Hydrocarbons																																									
TPH (g)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	—
TPH(d)	**210**	8.5	5.9	17	48	ND	15	4.4	3.4	3.9	93	6.5	9.5	72	11	ND	32	ND	160	2.3	15	36	110	61	ND	42	3	15	3.2	17	3.1	24	3.2	3.9	8.2	1.5	1.7	6.1	1.3	100	—
TPH(mo)	**970**	51	42	88	260	6.1	130	32	19	33	490	34	79	310	65	ND	200	ND	250	17	120	180	**1300**	390	7.5	340	11	95	9.7	63	15	150	13	12	33	ND	ND	7.3	5.4	500	—
VOCs (note: No VOCs detected in any of the samples except for the following:)																																									
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.072	0.068	ND	0.092	ND	ND	ND	ND	ND	ND	ND	0.5	—
Methylene Chloride	0.61	0.087	0.053	ND	0.079	0.44	0.062	0.098	0.24	0.035	0.085	0.047	0.48	0.3	0.37	0.19	0.32	0.27	0.28	0.35	0.24	0.29	0.48	0.15	1.3	0.19	0.44	0.46	0.37	0.23	1	0.092	0.310	0.37	0.25	0.36	0.44	0.44	0.41	0.52	—
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	—
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0098	ND	ND	ND	ND	ND	ND	ND	32	—
m,p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.051	ND	ND	ND	ND	ND	ND	ND	11*	—
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.023	ND	ND	ND	ND	ND	ND	ND	11*	—
SVOCs (note: No other SVOCs detected in the samples)																																									
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.55**	ND	ND	ND	**0.34**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11	—
Organochorine Pesticides (note: No OC Pesticides detected in the samples except for the following:)																																									
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	0.0029	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.015	—
4,4-DDE	ND	ND	0.056	0.036	ND	ND	0.06	ND	ND	0.0051	ND	0.034	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.6	1.6
4,4-DDT	ND	ND	0.022	0.019	ND	ND	ND	ND	ND	ND	ND	0.015	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.6	1.6
g-Chlordane	ND	0.003	ND	0.0054	ND	ND	ND	ND	0.0033	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44	0.43
a-Chlordane	ND	ND	ND	0.0039	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.44	0.43
Chlorinated Herbicides (note: No Chlorinated Herbicides detected in any of the samples)														—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Organophosphate Pesticides (note: No Organophosphate Pesticides detected in any of the samples)														—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polychlorinated biphenyls (PCBs)																																									
Aroclor-1242	ND	ND	ND	ND	**0.24**	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.089
Aroclor-1254	**0.17**	**0.098**	ND	ND	**0.83**	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.089
Aroclor-1260	**0.096**	0.027	ND	ND	**0.28**	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.22	0.089
Metals																																									
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.1	30
Arsenic	**8.2**	**8.1**	**8**	**7.2**	**8.6**	**8.2**	**8.5**	**7.7**	**8.6**	**7.7**	**9.7**	**7.6**	**9.5**	**2.9**	**8.6**	**8.4**	**4.8**	**8.8**	**8.5**	**7.7**	**7.4**	**7.2**	**5.9**	ND	**7.8**	**7.8**	**9**	**8.5**	**7.8**	**8.4**	**7.7**	**7.3**	**7.7**	**8.1**	**7.3**	**7.8**	**8.9**	**11**	**4.6**	**5.5**	0.07
Barium	230	180	210	200	100	180	180	210	230	210	210	200	370	92	270	210	150	190	250	210	200	190	300	53	210	240	200	150	190	**770**	210	**820**	180	180	180	170	190	220	140	750	5200
Beryllium	0.33	0.4	**0.54**	0.51	**0.28**	**0.49**	**0.44**	0.5	0.5	0.53	0.3	0.53	0.52	0.15	0.53	0.48	0.29	0.48	0.37	0.46	0.49	0.56	0.47	ND	0.52	0.48	0.45	0.39	0.46	0.21	0.48	0.16	0.45	0.45	0.44	0.43	0.51	0.54	0.23	4	150
Cadmium	0.65	0.72	0.65	0.8	0.81	0.33	0.71	0.43	0.45	0.60	1.5	0.66	0.71	0.69	0.67	0.32	1.2	0.3	**1.7**	0.37	0.7	0.62	0.76	ND	0.49	0.67	ND	0.63	0.38	**1.8**	0.34	1.3	ND	ND	**3.4**	ND	0.32	0.32	0.26	1.7	1.7
Chromium (total)	**79**	**66**	**67**	**67**	**83**	**58**	**65**	**63**	**66**	**71**	**250**	**68**	**110**	**96**	**110**	**58**	**74**	**68**	**72**	53	**68**	**66**	**85**	**640**	**84**	**60**	54	**88**	55	**2600**	**66**	**2900**	53	53	23	53	**86**	**68**	**80**	58	—
Hexavalent Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.70	ND	0.60	ND	ND	ND	ND	ND	ND	ND	1.8	30
Cobalt	**10**	**14**	**14**	**14**	**17**	**14**	**15**	**13**	**14**	**14**	9.4	**14**	**14**	**21**	**14**	**14**	9.3	**12**	**12**	**13**	**13**	**14**	**14**	**81**	**14**	**13**	**12**	**16**	**13**	8.9	**13**	8.5	**12**	**12**	6	**13**	**14**	**15**	10	10	660
Copper	33	27	36	35	40	33	39	35	34	37	62	37	57	49	50	35	30	33	40	32	40	35	37	**18**	36	32	31	31	33	**670**	36	**690**	26	30	18	28	35	34	21	230	3000
Lead	41	14	21	38	60	10	30	12	11	25	130	22	42	40	37	9.8	95	9.1	130	8.4	28	16	33	5	11	15	8.6	30	9	130	13	66	8.6	8.3	4.7	8.6	9.3	9.8	8.2	150	150
Mercury	1.8	**5.8**	0.19	0.16	**2.8**	0.061	0.12	0.072	0.063	0.27	5.5	0.37	1.4	0.84	3	ND	0.22	0.03	0.41	0.17	0.19	0.086	0.091	0.038	0.064	0.087	0.12	0.11	0.11	ND	0.099	ND	ND	0.21	0.04	0.083	0.088	0.1	0.094	3.7	18
Molybdenum	1.1	1.3	ND	ND	1.2	ND	ND	ND	ND	ND	2.1	ND	ND	ND	ND	ND	1.4	ND	1.9	ND	ND	ND	1.2	ND	1.7	ND	ND	ND	ND	**58**	1.2	**41**	ND	ND	6.5	ND	1.4	1.4	ND	40	380
Nickel	84	140	85	83	170	89	90	85	82	85	73	82	81	92	84	83	76	81	80	78	88	88	110	**1900**	83	92	82	**190**	79	110	84	110	76	77	43	83	93	100	90	150	1600
Selenium	0.65	ND	0.48	ND	0.29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.76	0.71	ND	ND	ND	0.5	ND	ND	ND	ND	**8.7**	ND	**11**	ND	ND	2.2	0.56	0.53	ND	ND	10	380
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	380
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.91	ND	ND	ND	ND	1	5
Vanadium	40	40	47	46	53	43	47	44	44	46	38	49	45	79	51	47	29	44	39	43	45	47	46	25	47	44	42	39	43	91	45	88	42	42	36	42	49	53	36	110	530
Zinc	78	51	90	100	100	70	100	73	69	89	190	120	110	120	200	55	200	62	260	60	88	83	100	40	77	71	60	82	63	**1200**	61	**650**	57	58	66	58	66	68	44	600	23000

Note: All ESLs are February 2005 levels set forth by the Regional Water Quality Control Board for Shallow Soil Screening Levels (<3m) for Residential Land Use where groundwater is NOT a drinking water source.

Note: CHHSLs are California Human health Screening Levels for Soil issued January 2005 by the California Environmental Protection Agency (Cal/EPA) and are not dependent on depth of soil.

Note:
Results in Bold Areas exceed relevant ESLs/CHHSLs.
All Soil Results reported in mg/kg.

SCA Environmental, Inc.
Project No.: F7896
August 29, 2006

1666 S. MAIN ST., MILPITAS, CA
GROUNDWATER RESULTS

	Sample ID							ESLs	MCLs	
Constituent	**GW-1**	**GW-2**	**GW-3**	**GW-4**	**GW-5**	**GW-6**	**GW-7**	**Groundwater**	**USEPA**	**CDHS**
Depth	38	35	43	35	35	45	45			
Hydrocarbons										
TPH (g)	ND	ND	ND	ND	ND	ND	ND	500	—	—
TPH(d)	71	140	84	87	79	59	110	640	—	—
TPH(mo)	ND	ND	ND	ND	ND	ND	ND	640	—	—
VOCs (note: No VOCs detected in samples except for the following:)										
Chloroform	ND		ND	ND	ND	0.8	ND	70	—	—
m,p-Xylenes	ND	0.9	ND	ND	ND	ND	1.1	1800	1000	1800
SVOCs (note: No SVOCs detected in any of the samples)										
Organochorline Pesticides (note: No OC Pesticides detected in the samples)										
Chlorinated Herbicides (note: No Chlorinated Herbicides detected in any of the samples)										
Organophosphate Pesticides (note: No Organophosphate Pesticides detected in any of the samples)										
Polychlorinated biphenyls (PCBs) (note: No PCBs detected in any of the samples)										
Metals										
Antimony	ND	ND	ND	ND	ND	ND	ND	6	6	6
Arsenic	27	14	11	8.8	24	15	17	50	10	50
Barium	450	300	600	380	270	340	330	1000	200	100
Beryllium	**5.2**	3	2.1	2.3	2.9	**5.5**	3.4	4	4	4
Cadmium	ND	ND	ND	ND	**9.4**	ND	ND	5	5	5
Chromium-Total	23	**110**	14	23	48	**68**	11	50/20,000/21*	100	50
Cobalt	41	31	ND	ND	31	50	24	140	—	—
Copper	190	350	680	260	240	**1500**	220	1300	1300	1300
Lead	**23**	**19**	**16**	13	ND	**16**	9	15	15	15
Mercury	**9.8**	**6.5**	**6**	**6.5**	**13**	**11**	**26**	2	2	2
Molybdenum	ND	ND	ND	ND	ND	ND	ND	35	—	—
Nickel	**110**	**100**	37	38	65	**130**	46	100	—	100
Selenium	ND	ND	ND	ND	7.5	7.2	ND	50	50	50
Silver	ND	ND	ND	ND	ND	ND	ND	100	—	—
Thallium	ND	ND	ND	ND	ND	ND	ND	2	2	2
Vanadium	**150**	**90**	**64**	**54**	**75**	**230**	92	15	—	—
Zinc	49	170	80	170	45	110	44	5000	—	—
*Total Cr/ Cr^{+3}/ Cr^{+6}										
ESLs are February 2005 RWQCB levels where groundwater is NOT a drinking water source. MCLs reported are USEPA and State Levels.										

Note:
Results in Bold exceed ESLs.
All Results reported in ug/L.

SCA Environmental, Inc.
Project No.: F7896
August 29, 2006

NOISE IMPACT STUDY OF THE PROPOSED ASPEN FAMILY APARTMENTS DEVELOPMENT ON SOUTH MAIN STREET IN THE CITY OF MILPITAS

Report #06107Brpt
(Second Revision)

Prepared for:

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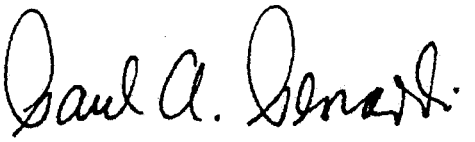

Prepared by:_____
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December 23, 2006

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NOISE IMPACT STUDY OF THE PROPOSED ASPEN FAMILY APARTMENTS DEVELOPMENT ON SOUTH MAIN STREET IN THE CITY OF MILPITAS

INTRODUCTION

The proposed apartment development is located at 1666 S. Main Street in the city of Milpitas (see a vicinity map on Exhibit 1 and a reduced Site Plan on Exhibit 2). The development consists of three 4-story buildings with two levels of subterranean parking. The purpose of this study is to address concerns of the Milpitas Planning Department for potential noise impact onto the site, resulting from vehicular traffic on S. Main Street which adjoins the site on the west, and train traffic on the Union Pacific Railroad tracks which adjoin the site on the east. In addition, conceptual noise mitigation measures that may be necessary to meet the intrusive interior noise level limits imposed by the state of California for multiple-family residential developments (ref. 9) and exterior noise level limits imposed by the city of Milpitas for residential projects (ref. 7 & 8) are to be provided.

NOISE CRITERIA

Airborne Noise

The state of California requires that all multiple-family residential dwelling units exposed to an exterior noise impact above 60 dB CNEL/Ldn[1] be analyzed to assure that anticipated intrusive interior noise levels will not exceed 45 dB CNEL/Ldn in any habitable spaces (ref.10). If the calculations are based upon closed windows and exterior doors, a ventilation or air conditioning system must be utilized to provide a habitable interior environment. Additionally, party walls and floor-ceiling assemblies between individual dwelling units, and between dwelling units and public spaces, shall possess sufficient airborne noise attenuation as to meet a Sound Transmission Class (STC) of 50[2] (45 if field tested). Floor-ceiling assemblies between stacked units must also possess sufficient structure-borne noise attenuation as to meet an Impact Insulation Class (IIC)[3] of 50 (45 if field tested).

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[1] CNEL is the 24-hour time-average A-weighted energy equivalent continuous sound level in decibels, including a weighting penalty of +5 dB for events occurring between 7 pm and 10 pm, and a weighting penalty of +10 dB for events occurring between 10 pm and 7 am. Ldn is similar with the exception that there is no weighting penalty for the 7-10 pm time period.

[2] STC (Sound Transmission Class) is a single-number rating that quantifies the airborne sound transmission loss for a structural element in accordance with ASTM E 90 and E 413 using one-third octave band sound transmission loss data in a curve-fitting procedure. Higher numbers indicate better acoustical performance.

[3] IIC (Impact Insulation Class), similar to the STC, is a single-number rating that quantifies the impact sound isolation performance of floor-ceiling constructions. The IIC rating is determined by fitting a standard contour to the one-third octave band sound pressure level data measured in accordance with ASTM E 492. Higher numbers indicate better acoustical performance.

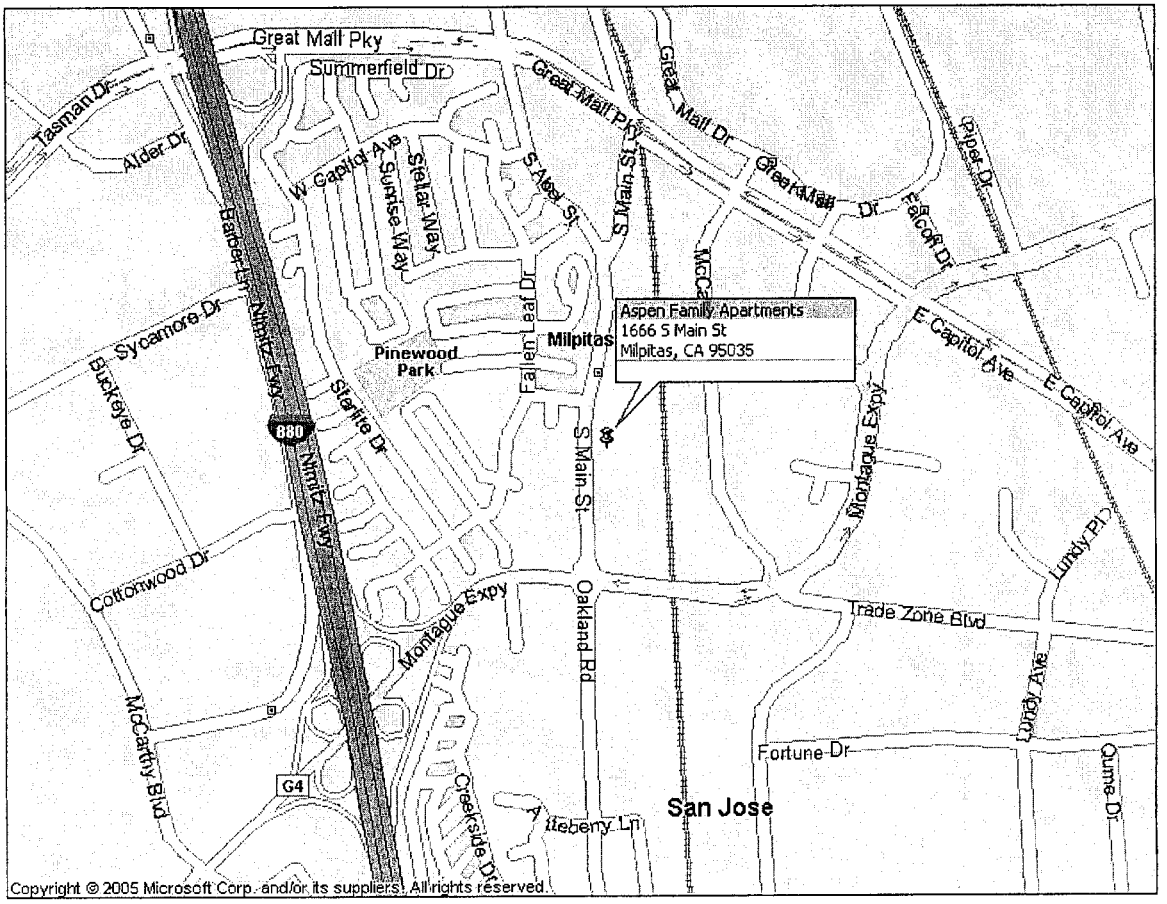

Exhibit 1: Vicinity Map of The Proposed Aspen Family Apartments Development in Milpitas, California.

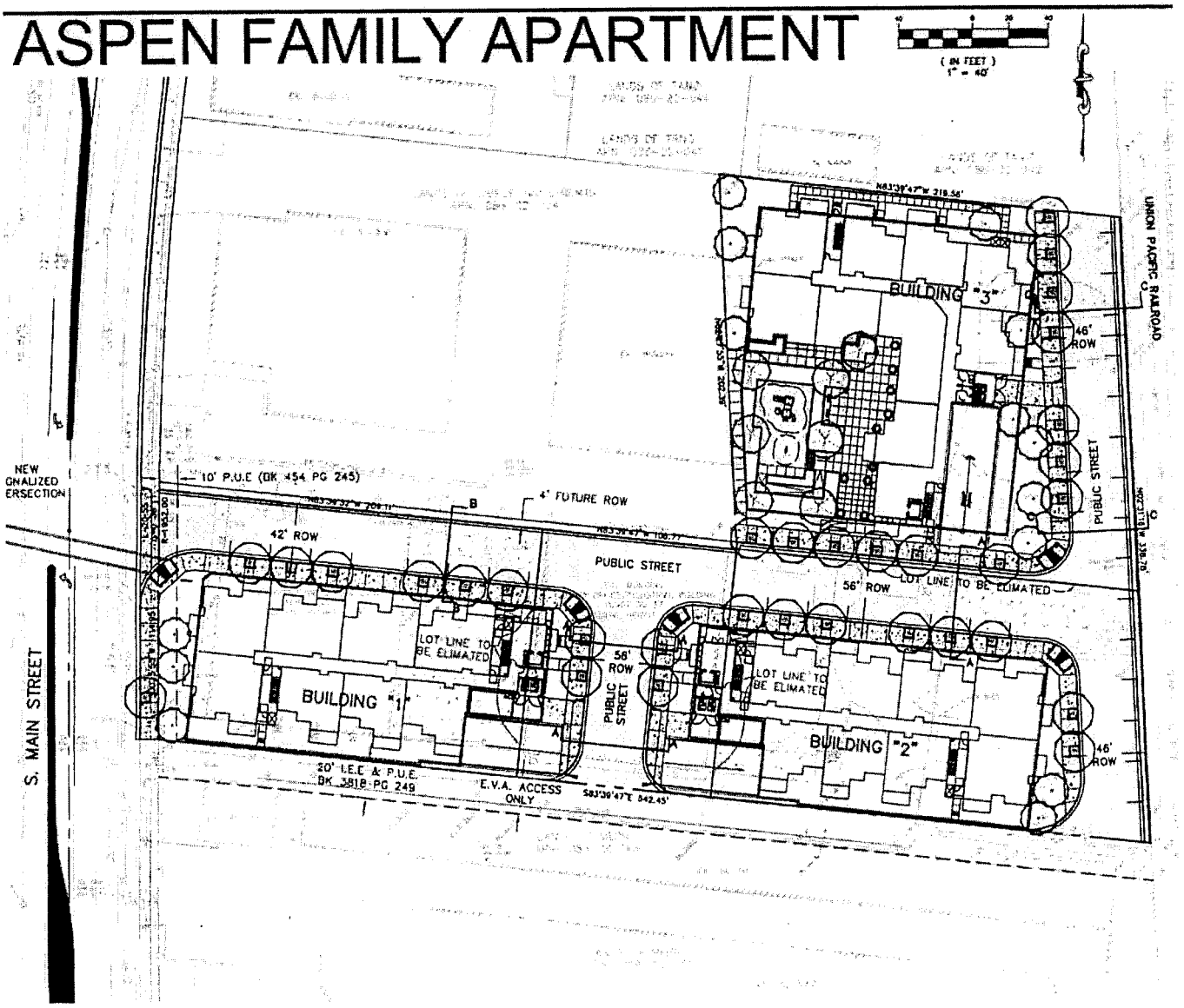

Exhibit 2: Reduced Site Plan of The Proposed Aspen Family Apartments.

For multiple-family residential developments, the city of Milpitas considers an exterior noise level range of 60-65 dB Ldn in outdoor recreational areas as "normally acceptable", and a range of 60-70 dB Ldn as "conditionally acceptable" (ref. 7 & 8). Where actual or projected rear yard and exterior common open space exceeds the "normally acceptable" levels for new single-family and multiple-family residential projects, mitigation measures are to be used to reduce sound levels in those areas to acceptable levels.

Vibration
Although no building vibration criterion has been assigned to this project, the city has asked for an evaluation. For the frequency range of 1-80 Hz, a longitudinal acceleration limit in m/sec^2 defined by $.072/(\sqrt{t})$, where t equals the duration of the vibration, was applied to the project (ref. 4).

ANALYSIS

Exterior Impacts

Airborne Noise
The main sources of noise impact onto the site are the vehicular traffic on S. Main Street and train traffic on the Union Pacific rail line. The proposed dwelling units closest to S. Main Street lie at a distance of about 66 feet from the centerline. The apartment units located closest to the railroad lie at a distance of about 85 feet from the tracks.

S. Main Street
The noise impact from this roadway was calculated using the Federal Highway Administration's noise prediction model, FHWA RD-77-108 (ref. 5), as modified for Ldn. The roadway noise impact is calculated using noise model input data such as average daily traffic (ADT), vehicle mix and distribution, vehicle speed, roadway geometry, distance between the roadway and receptor, etc. The city's Transportation Department reports an existing ADT for S. Main Street as 17,710 vehicles per day (2003 census). A noise impact onto the project site was calculated based upon this ADT and other factors shown on Table 1 in Appendix I with the result of a vehicular traffic noise impact of 66.6 dB Ldn at the building line nearest the roadway. If, in the future, the traffic volume were to increase to a Level-of-Service "C" ADT of 30,000 for this 4-lane divided roadway, the noise impact at the nearest building line would increase to 68.9 dB Ldn. This latter figure was used in the analysis for conservatism.

Union Pacific Railroad
Union Pacific reported that the rail line adjoining the east side of the site carries an average of four freight trains per day at average speeds of 10 mph. Due to security concerns wrought by the aftermath of the terrorist attacks of 9/11/2001, no further data was available. A site visit was made on December 4^{th} and 5^{th}, however, to obtain more data and to make ground vibration measurements that were requested by the city Planning Department. During three hours of observations on the afternoon of the $4^{th,}$ and three hours of observations on the morning of the 5^{th}, only three total train movements were observed. Unlike the assumptions made in previous versions of this report, the trains were very short and consisted of two locomotives and one or two tank cars or rail cars. The estimated speeds were between 5 mph and 10 mph. It became obvious that the subject railroad tracks were not being used for long distance mainline events, but for some type of switching operations. Also, discussions with the

yard attendant at the adjoining self-storage facility indicated that the trains typically travel between the hours of 7 a.m. and 8:30 p.m., i.e., there are no "nighttime" train operations between the hours of 10 p.m. and 7 a.m. (the yard attendant lives on site). This is significant because nighttime noise events greatly affect the calculated Ldn and/or CNEL values. Therefore, the train noise impact was recalculated based upon information obtained from the site visits and the storage facility yard attendant.

As before, noise impact from the train traffic was calculated using a methodology developed by Wyle Laboratories which can be found in Wyle Report WCR 73-5 (ref. 11). The data listed, above, and other factors used in the calculation of the train noise impact can be found on the worksheet in Appendix II with the result of an exterior noise level of 60.6 dB Ldn at the building line nearest the railroad tracks (85 feet from the tracks). Since projected future train traffic data was not available from UPRR, a doubling of existing traffic was assumed for conservatism. This results in a calculated noise impact of 63.6 dB Ldn at 85 feet. This latter figure was used in the analysis for conservatism and is within the "normally acceptable" range specified by the city of Milpitas for outdoor living spaces. Note, however, that there are no common outdoor living spaces located along the east sides of the buildings adjoining the railroad tracks that would be impacted by the calculated train noise. Therefore, considering these two factors, a noise barrier along the east property line will not be required for noise control.

The outdoor area that would be considered as a primary outdoor living space is the communal area on the west side of Building 3 at the northeast corner of the site adjoining the railroad tracks (see Exhibit 2). The train noise impact will be greatly reduced by the presence of the building, itself, such that the shielded exterior noise impact in this area will be readily less than the 65 dB Ldn limit. Also, noise impact from S. Main Street in this area will easily be less than 65 dB Ldn due to the great distance from the roadway and acoustical shielding that will be provided by the buildings themselves.

Vibration

Vibration measurements were made during the site visits on December 4th and 5th at the proposed building line nearest the UPRR tracks (85 feet from the center of the tracks). The average of the measured acceleration values in the longitudinal direction for the three observed train passages was 1.5×10^{-2} m/sec^2. Using the expression of $.072/(\sqrt{t})$, where "t" represents the train pass by duration of 13.6 seconds (see Appendix II), yields a recommended limit of 1.95×10^{-2} m/sec^2 for the frequency range of 1-80 Hz. Since the measured acceleration value is less than the calculated recommended limit, the project can be expected to be in compliance.

Intrusive Interior Noise Impact and Control

The methodology typically used to calculate the anticipated intrusive interior noise levels consists of determining the composite building shell noise reduction and then subtracting this reduction from the calculated exterior noise impacts as projected to the facades of interest. The overall noise reduction of the building shell was assessed by the use of published octave-band sound transmission loss data for the individual elements that comprise the building envelope (e.g., vision glass, opaque wall sections, exterior doors, etc.) in conjunction with the respective areas of the elements and the mathematical expressions and calculations shown in Appendix III. Calculations were made for the Master Bedroom of a representative Plan 2A unit in Building 3 which faces the railroad tracks on the east end of the site to assess the anticipated intrusive interior noise levels. A calculation for this representative "worst case" example is shown in Appendix III with the result of an anticipated intrusive interior noise level of

36.1 dB Ldn which readily complies with the limit of 45 dB. Note that this is based upon the assumption of the use of a window having a minimum STC rating of 25 which is typically achievable by standard residential windows utilizing ½" dual insulating glass or double-strength glass.

The 27.5 dB noise reduction attributable to the Master Bedroom in the Plan 2A unit (see Appendix III) would be typical for that achievable in the bedrooms in the Plan 3A units in Building 1 located immediately adjacent to S. Main Street. Subtracting the 27.5 dB noise reduction from the calculated "worst case" vehicular traffic noise impact of 68.9 dB Ldn yields an anticipated worst case intrusive interior noise level of 41.4 dB Ldn. This also is less than the mandated limit of 45 dB Ldn/CNEL.

The proposed apartment buildings, therefore, can be expected to be in compliance with the state noise code with standard building shell construction, e.g., stucco or wood siding over wood studs, batt insulation, and an interior finish of gypsum board. Standard windows also will be acceptable.

Since the calculations for anticipated intrusive interior noise levels were based upon the assumption of closed windows and exterior doors, however, a ventilation or air conditioning system must be utilized to provide a habitable interior environment, according to the state noise code. This applies to all of the units in the proposed development.

Unit-to-Unit and Public Space-To-Unit Noise Control

Party (Common) Walls and Corridor Walls

The design of the walls which will separate adjoining units from one another, and units from interior corridors, consists of a single 2" x 4" or 3" x 4" wood stud wall, studs at 16" o.c., R-11 fiberglass insulation between the studs, with a layer of 5/8" drywall directly nailed or screwed to one side of the wall, and another layer screwed to resilient channels mounted on the other side of the wall. This design has been shown by laboratory sound transmission loss tests to be capable of meeting the minimum required rating of 50 STC (Riverbank Acoustical Labs, Test TL 77-138; STC = 50). It should be noted that the state noise code specifies that entrance doors to dwelling units from interior corridors, together with their perimeter seals, shall have an STC rating not less than 26. Solid-core wood slab doors (1-3/8" minimum thickness) or 18 gauge insulated steel slab doors, with compression seals all around including the threshold, may be considered adequate without other substantiating information.

Since the achieved noise control for multiple-family dwellings is heavily dependent upon careful construction in the field, the following precautions should be observed.

- A non-hardening caulking should be used at the base of party walls and corridor walls to effect an airtight seal between the wall and floor (e.g., USG Acoustical Sealant, W.W. Henry Sound Control Sealant, or approved equivalent). A gap of 1/8"-3/8" should be left between the bottom edge of the drywall and the floor and be filled with caulking (both sides of the wall).

- Any openings on the rear or sides of electrical boxes mounted on party walls and corridor walls should be sealed with duct seal or electrical box sealing pads. Also, cutouts around these fixtures should be caulked to minimize acoustical leakage paths. Boxes installed in party walls to accommodate telephone wires or TV cable must have closed backs; plaster rings, open-back boxes or through-boxes must not be used. Any boxes mounted in party walls, on both sides, should be

displaced at least one stud bay from one another, or a minimum of 24" in a vertical direction. Also, fiberglass batts should be installed in the stud bays where the boxes occur.

- Drywall must be installed behind any tubs or showers that are mounted on party walls, i.e., the drywall should be continuous from top plate to bottom plate as it is on other sections of the party wall.

- To conform with the state noise code requirement that plumbing penetrations of party walls not compromise the designed acoustical integrity of these walls, any pipes passing through the drywall leaves must be sealed and not form a rigid connection from one side of the party wall to the other. This can be accomplished by cutting the plumbing pass-through holes in the drywall oversized by about 1/4" and caulking around the pipe penetrations with a resilient material like the caulking materials discussed, above.

- Water supply and waste plumbing installed in party walls should be physically isolated from the framing members by the use of soft materials at the points of attachment. Examples are 1/4" thick felt, carpet padding, or commercial pipe isolators employing integral elastomeric collars (e.g., Acousto-Plumb system from Specialty Products Company and the Hold Rite Silencer System products from Hubbard Enterprises). Fiberglass batts should be installed around all the plumbing runs in these walls.

- In the case of walls where resilient channels are used as part of the sound-attenuating assembly, care should be taken in the installation of drywall on the resilient channels so that the drywall screws do not penetrate the studs. Either the appropriate lengths of drywall screws should be used (1" for one layer of 5/8" GWB), or the drywall should not be screwed in areas where the resilient channels cross the studs. Note that the resilient channels must be mounted on the studs with the mounting flanges downward. Also, in cases where plywood shear panels must be used on sound-attenuating walls, the panels must be installed on the non-resilient channels sides of the walls.

Floor-Ceiling Assemblies

The proposed design of the floor-ceiling assemblies that will separate the stacked dwelling units from one another has not been finalized at the time of this writing. One potential design consists of a 1" layer of Gyp-Crete on a 3/4" plywood sub floor, 2"x wood joists, batt insulation, and 5/8" drywall screwed to resilient channels at the ceiling. Laboratory tests have shown that this floor-ceiling assembly design is capable of meeting an STC of 60 (Test #TL81-16), an IIC of 79 with carpet and pad, (Test #5-761-2), and an IIC of 55 with cushioned vinyl flooring (Test IN81-1). These comply with the minimum 50 STC and 50 IIC requirements of the state noise code.

Another design is similar with the exception that TJIs are used for the floor structural members. In this case, Acousti-Mat II is used under the Gyp-Crete. Field tests have shown that this floor-ceiling assembly design is capable of meeting an FSTC of 56 (Test #1801/99 1736.7), an FIIC of 53 with vinyl flooring, (Test #1801/99 1736.3), and an FIIC of 52 with ceramic tile (Test #1801/99 1736.4). These comply with the minimum 50 STC and 50 IIC requirements of the state noise code.

Note, however, that it is very difficult to obtain the required 50 IIC minimum rating for floor-ceiling assemblies where floors are not carpeted or do not have at least some type of resilient floor covering.

Hard-surfaced flooring materials like concrete pavers or ceramic tile can not be used without special resilient underlayments and structural isolation. If ceramic tile flooring is opted for the apartment project, the following alternative floor-ceiling assembly designs are offered toward the goal of meeting the state-mandated minimum 50 IIC requirement (assembly cross-sections described going vertically from floor down to the ceiling).

- Ceramic tile on 7/16" Wonder-Board, 6mm AcoustiCork, 5/8" plywood, 2" x wood joists, batt insulation, resilient channels and 5/8" gypsum board at the ceiling (RAL Test #TL94-274; STC = 64. RAL Test #IN94-19; IIC = 50).
- Ceramic tile on 1-1/4" mortar bed, 6mm AcoustiCork, 5/8" plywood, 2" x wood joists, batt insulation, resilient channels and 5/8" gypsum board at the ceiling (RAL Test #TL94-296; STC = 61. RAL Test #IN94-20; IIC = 50).
- Ceramic tile on 1" gypsum concrete floor topping on 1/4" Acousti-Mat II resilient isolating mat on 3/4" T&G OSB sub floor, TJI joists, batt insulation, resilient channels and 5/8" gypsum board at the ceiling (Test #1801 99 1736.7; FSTC = 56. Test # 1801 99 1736.4; FIIC = 52).
- Ceramic tile on 7/16" Wonder-Board, Enkasonic Sound Control Matting, 5/8" plywood on 2" x 10" wood joists, batt insulation, resilient channels and 5/8" gypsum board at the ceiling (Ceramic Tile Institute assembly CTI #5, Davy & Assoc. JN 8010; STC = 62 and IIC = 58).
- Ceramic tile on 1-1/4" mortar bed, 4 mil polyethylene sheeting, Enkasonic Sound Control Matting, 5/8" plywood on 2" x 10" wood joists, batt insulation, resilient channels and 5/8" gypsum board at the ceiling (Ceramic Tile Institute assembly CTI #7, RAL Test #TL 80-74; STC = 60. RAL Test #IN 80-1; IIC = 55).

Note that it is important for all of the above described floor-ceiling assemblies using ceramic tile with a resilient underlayment that the tile and the embedment substrate be physically isolated from the periphery of the room(s) with some kind of resilient sheet material, e.g., 1/4" polyethylene foam, 6 mm cork sheeting, or 1/2" rigid fiberglass board. Also note that any given floor-ceiling assembly will readily meet a minimum IIC of 50 with just about any kind of carpet on the floor and without any special resilient underlayments in the assembly.

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APPENDIX I

ROADWAY NOISE EMISSION ANALYSIS BASED

UPON FHWA RD-77-108 NOISE PREDICTION MODEL

TABLE: 1 RUN DATE: 5/17/06

ROADWAY SEGMENT: S. Main Street.

NOTES: Existing ADT per Milpitas Transportation Dept.; calculation made for building façade closest to roadway centerline.

INPUT DATA

AVG. DAILY TRAFFIC: 17,710 VEH. SPEED: 35 mph RD. GRADE: 0

RD. ACTIVE HALF-WIDTH: 24 Feet SITE CHARACTERISTICS: Hard

ROAD SURFACE ELEVATION (FT): N/A
BARRIER BASE ELEVATION (FT): N/A
BARRIER HEIGHT (FT): N/A; TYPE:
RECEPTOR BASE ELEVATION (FT): N/A
RECEPTOR HEIGHT (FT): N/A
RECEPTOR TO RD. CENTERLINE DIST. (FT): 66
RECEPTOR TO BARRIER DIST. (FT): N/A

	TRAFFIC DISTRIBUTION PERCENTAGES						
	DAY		EVE		NIGHT		
AUTOS	73.60	+	13.60	+	10.22	=	**97.42**
M. TRUCKS	0.90	+	0.04	+	0.90	=	**1.84**
H. TRUCKS	0.35	+	0.04	+	0.35	=	**0.74**
	74.85	+	**13.68**	+	**11.47**	=	**100.00**

CALCULATED NOISE LEVELS

UNSHIELDED NOISE IMPACT W/O BARRIER (CNEL/Ldn): 66.6 dB(A)

SHIELDED NOISE IMPACT W/ BARRIER (CNEL/Ldn): N/A

COMMENTS: For "worst case" Level-of-Service "C" ADT of 30,000 vehicles per day, CNEL/Ldn = 68.9 dB

APPENDIX II

WORKSHEET FOR DETERMINATION OF RAILROAD Ldn IMPACT

PER METHODOLOGY IN WYLE LABORATORIES REPORT WCR 73-5,

"ASSESSMENT OF NOISE ENVIRONMENTS AROUND RAILROAD OPERATIONS"

For current conditions for Union Pacific Railroad bordering the site.

A. Reported average daily train traffic = 4 freights. Assumed distribution based upon site-obtained information—all passages occurring during the "daytime" hours of 7 a.m. to 10 p.m.

B. Average train length = 200 feet (est.)
C. Distance from tracks to nearest building line = 85 feet
D. Pass by duration (t) = 0.68 x (length/velocity), seconds
For average velocity of 10 mph, duration = 0.68 x (200/10) = 13.6 seconds
E. C2 duration = 10 log (t) = 10 log 13.6 = 11.3
F. C1 = typical A-weighted noise level for freight cars @ 100 feet = 70 dB(A), per Fig. 3.4-2 in Report WCR 73-5

G. SENEL (freight car) @ 100 feet = C1 + C2 = 70 + 11.3 = 81.3 dB(A)
H. SENEL (locomotive) @ 100 feet = 103 dB(A) per Fig. 3.4-6 in WCR 73-5
I. SENELs @ 85 feet, projected from adjustments derived from Fig. 3.4-4
SENEL (freight car) = 81.3 + 1 = 82.3 dB(A)
SENEL (locomotive) = 103 + 1 = 104 dB(A)
J. Total SENEL @ 85 feet = energy sum of 82.3 & 104 = 104 dB(A)

K. Ldn = SENEL + 10 log (N) - 49.4
where: N = number trains day + 10 x number trains night

Therefore, Ldn @ 85 feet = 104 + 10 log (4) - 49.4 = <u>60.6 dB</u>

L. For an assumed doubling of train traffic in the future, the corresponding noise impact would be <u>63.6 dB Ldn</u> at 85 feet.

APPENDIX III

CALCULATION OF ANTICIPATED INTRUSIVE INTERIOR NOISE LEVEL WITHIN REPRESENTATIVE "WORST CASE" INTERIOR SPACE (MASTER BEDROOM IN A PLAN 2A UNIT FACING THE RAILROAD TRACKS IN BUILDING 3.)

1. Gross exterior wall = 80 sq. ft. which includes 16 sq. ft. of window area @ 23 dB TL, and 64 sq. ft. net opaque stuccoed wall area @ 45 dB TL; room volume = 1160 cu. ft. Composite wall TL = 29.9 dB

2. Room absorption by Sabine equation = 116 sabins based upon assumed "worst case" RT60 of 0.5 seconds @ 500 Hz

3. Exterior noise impact = 63.6 dB Ldn (per Appendix II)

4. Per ASTM E966-84 for incoherent line array roadway noise source and assumed applicable to a moving train:

   Noise Reduction (NR) = TL - 10 log (S/A) - 10 log (avg. cos. ϕ) - 6
   where:

   S = surface area exposed to noise
   A = room acoustical absorption in sabins
   10 log (avg. cos. ϕ) = -2 for 180 degree exposure to noise source

   Therefore, NR = TL - 10 log (S/A) - 4
   NR = 29.9 - 10 log (80/116) - 4 = 29.9 + 1.6 - 4 = 27.5 dB

5. **L**in = **L**out - NR = 63.6 – 27.5 = <u>36.1 dB Ldn</u>

Conclusion: Meets intrusive interior noise level limit of 45 dB CNEL/Ldn.